YORK®
Heating and Air Conditioning

TECHNICAL GUIDE

PREDATOR®

R-410A
ZH/ZR/XP SERIES
6-1/2 - 12-1/2 TON
60 Hertz

6-1/2 THROUGH 10 TON

12-1/2 TON

Description

ASHRAE 90.1 COMPLIANT

YORK® Predator® units are convertible single packages with a common footprint cabinet and common roof curb for all 6-1/2 through 12-1/2 ton models. All units have two compressors with independent refrigeration circuits to provide 2 stages of cooling. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, or frame.

All Predator® units are self-contained and assembled on rigid full perimeter base rails allowing for 3-way forklift access and overhead rigging. Every unit is completely charged, wired, piped, and tested at the factory to provide a quick and easy field installation.

All units are convertible between side and down airflow. Independent economizer designs are used on side and down discharge applications, as well as all tonnage sizes.

Predator® units are available in the following configurations: cooling only, cooling with electric heat, cooling with gas heat, heat pump, and heat pump with electric heat. Electric heaters are available as factory-installed options or field-installed accessories.

Tested in accordance with:

DESIGN CERTIFIED

C SA US

ARI PERFORMANCE CERTIFIED

ARI Standard 340/360
Commercial and Industrial Unitary
Air Conditioning Equipment

CSA CERTIFIED

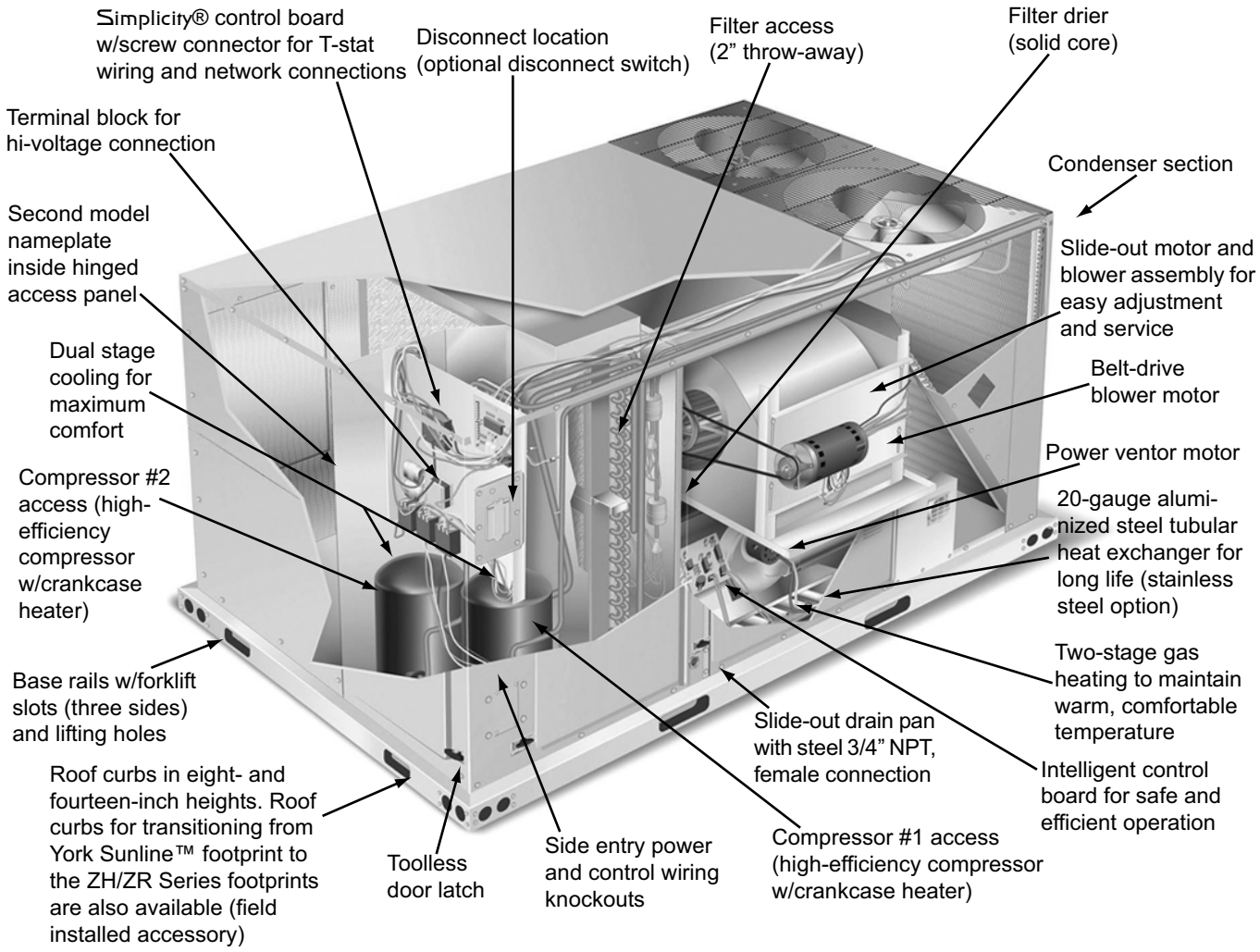
FOR DISTRIBUTION USE ONLY - NOT TO BE USED AT POINT OF RETAIL SALE

Table of Contents

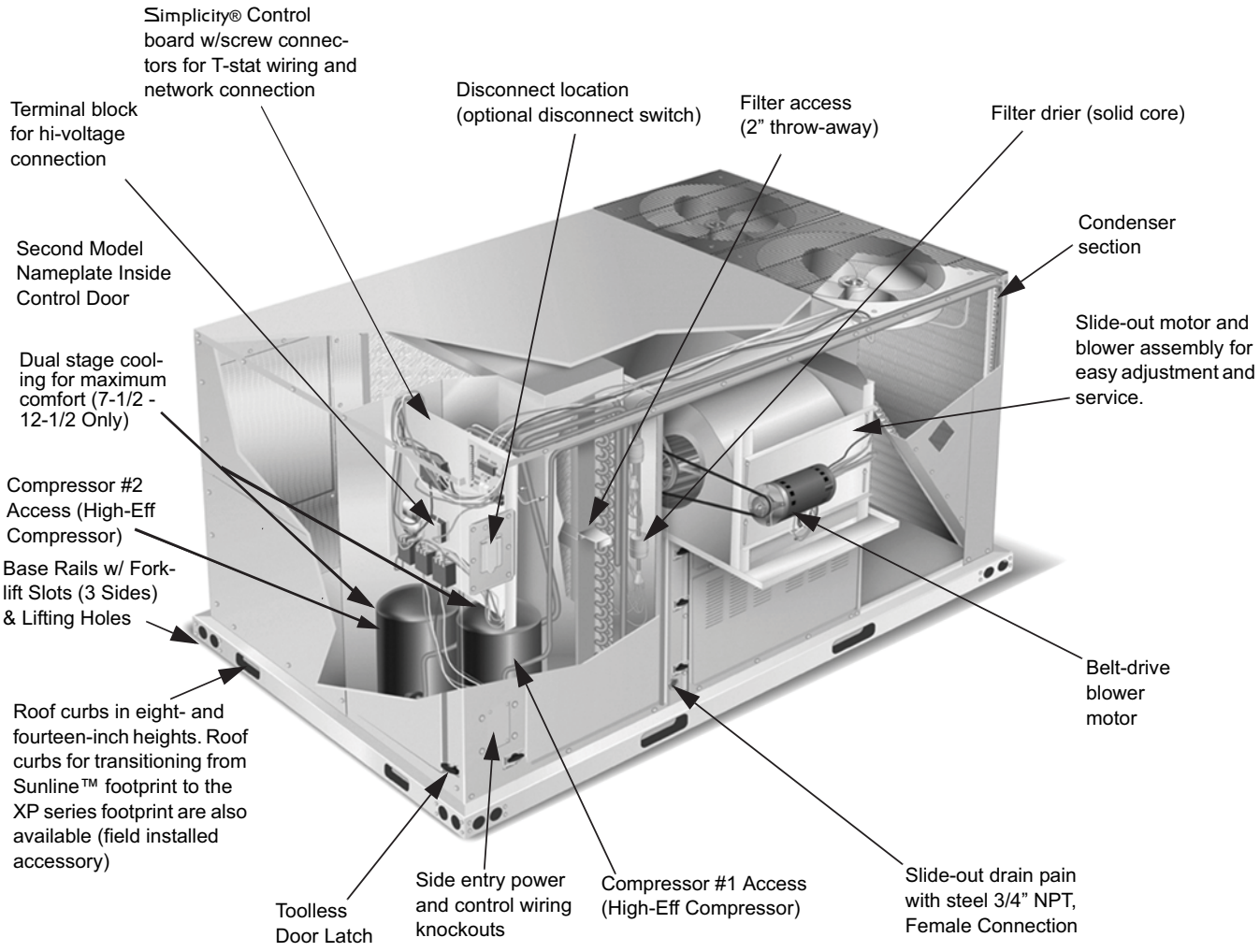
Description 1
Table of Contents 2
Component Location 2
Nomenclature 4
Features and Benefits 5
Guide Specifications 10
Physical Data 15
Capacity Performance 22
Airflow Performance 64
Sound Performance 81
Electrical Data 82
Typical Wiring Diagrams 106
Weights and Dimensions 116
Economizer Options 123

Component Location

Cooling With Gas Heat


Simplicity® control board w/screw connector for T-stat wiring and network connections
Disconnect location (optional disconnect switch)
Filter access (2" throw-away)
Filter drier (solid core)
Terminal block for hi-voltage connection
Condenser section
Second model nameplate inside hinged access panel
Slide-out motor and blower assembly for easy adjustment and service
Dual stage cooling for maximum comfort
Belt-drive blower motor
Power ventor motor
Compressor #2 access (high-efficiency compressor w/crankcase heater)
20-gauge aluminized steel tubular heat exchanger for long life (stainless steel option)
Two-stage gas heating to maintain warm, comfortable temperature
Base rails w/forklift slots (three sides) and lifting holes
Slide-out drain pan with steel 3/4" NPT, female connection
Intelligent control board for safe and efficient operation
Roof curbs in eight- and fourteen-inch heights. Roof curbs for transitioning from York Sunline™ footprint to the ZH/ZR Series footprints are also available (field installed accessory)
Toolless door latch
Side entry power and control wiring knockouts
Compressor #1 access (high-efficiency compressor w/crankcase heater)

Heat Pump


Simplicity® Control board w/screw connectors for T-stat wiring and network connection
Terminal block for hi-voltage connection
Disconnect location (optional disconnect switch)
Filter access (2" throw-away)
Filter drier (solid core)
Condenser section
Second Model Nameplate Inside Control Door
Slide-out motor and blower assembly for easy adjustment and service.
Dual stage cooling for maximum comfort (7-1/2 - 12-1/2 Only)
Compressor #2 Access (High-Eff Compressor)
Base Rails w/ Forklift Slots (3 Sides) & Lifting Holes
Belt-drive blower motor
Roof curbs in eight- and fourteen-inch heights. Roof curbs for transitioning from Sunline™ footprint to the XP series footprint are also available (field installed accessory)
Toolless Door Latch
Side entry power and control wiring knockouts
Compressor #1 Access (High-Eff Compressor)
Slide-out drain pain with steel 3/4" NPT, Female Connection

Nomenclature

6.5-12.5 Ton York® Model Number Nomenclature

Z	H	090	N10	A	2	A	AA	4	0	1	2	4	A

Product Category

Z = A/C, Single Pkg., R-410A
X = HP, Single Pkg., R-410A

Product Identifier

H = 11.0+ EER A/C
P = 11.0 EER HP
R = Reheat

Nominal Cooling Capacity

078 = 6.5 Ton
090 = 7.5 Ton
102 = 8.5 Ton
120 = 10.0 Ton
150 = 12.5 Ton

Heat Type and Nominal Heat Capacity

C00 = Cooling Only. No heat installed

Gas Heat Options

N10 = 100 MBH Output Aluminized Steel
N15 = 150 MBH Output Aluminized Steel
N20 = 200 MBH Output Aluminized Steel
S10 = 100 MBH Output Stainless Steel
S15 = 150 MBH Output Stainless Steel
S20 = 200 MBH Output Stainless Steel

Electric Heat Options

E09 = 9 KW
E18 = 18 KW
E24 = 24 KW
E36 = 36 KW
E54 = 54 KW

Airflow

A = Std. Motor
B = Std. Motor/Econo./Barometric Relief (Downflow Only)
C = Std. Motor/Econo./Power Exhaust (Downflow Only)
D = Std. Motor/Motorized Damper (Downflow Only)
E = Std. Motor/Horizontal Economizer (No Baro.)
F = Std. Motor/Slab Econo./Power Exhaust (Downflow Only)
G = Std. Motor/Slab Econo./Barometric Relief (Downflow Only)
N = Hi Static
P = Hi Static/Econo./Barometric Relief (Downflow Only)
Q = Hi Static/Econo./Power Exhaust (Downflow Only)
R = Hi Static/Motorized Damper (Downflow Only)
S = Hi Static/Horizontal Economizer (No Baro.)
T = Hi Static/Slab Econo./Power Exhaust (Downflow Only)
U = Hi Static/Slab Econo./Barometric Relief (Downflow only)

Voltage

2 = 208/230-3-60
4 = 460-3-60
5 = 575-5-60

Installation Options

A = No Options Installed
B = Option 1
C = Option 2
D = Options 1 & 2
E = Option 3
F = Option 4
G = Options 1 & 3
H = Options 1 & 4
J = Options 1, 2 & 3
K = Options 1, 2, & 4
L = Options 1,3 & 4
M = Options 1, 2, 3, & 4
N = Options 2 & 3
P = Options 2 & 4
Q = Options 2, 3, & 4
R = Options 3 & 4
S = Option 5
T = Options 1 & 5
U = Options 1, 3, & 5
V = Options 1, 4, & 5
W = Options 1, 3, 4, & 5
X = Options 3 & 5
Y = Options 4 & 5
Z = Options 3, 4 & 5

Options

1 = Disconnect
2 = Non-Pwr'd Conv. Outlet
3 = Smoke Detector S.A.
4 = Smoke Detector R.A.
5 = Pwr'd Conv. Outlet

Additional Options

AA = None
AB = Phase Monitor
AC = Coil Guard
AD = Dirty Filter Switch
AE = Phase Monitor & Coil Guard
AF = Phase Monitor & Dirty Filter Switch
AG = Coil Guard & Dirty Filter Switch
AH = Phase Monitor, Coil Guard & Dirty Filter Switch
RC = Coil Guard, Shipping Bag & American Flag
TA = Technicoat Condenser Coil
TJ = Technicoat Evaporator Coil
TS = Technicoat Evaporator & Condenser Coils

ZZ = If desired option combination is not listed above, ZZ will be assigned and configuration options will be located in digits 15-18.

Product Generation

4 = Fourth Generation

Configuration Options (not required for all units)
These four digits will not be assigned until a quote is requested, or an order placed.

- SS Drain Pan
- CPC Controller, DFS, APS
- Johnson Controller UNT 1126 (N2 protocol), DFS, APS
- Honeywell Controller, DFS, APS
- Novar Controller, DFS, APS
- Simplicity IntelliComfort Controller
- Simplicity IntelliComfort Controller w/ModLinc
- York Commercial Comfort System (YCCS) Rtu Controller
- 2" Pleated filters
- BAS Ready Economizer (2-10 V.D.C. Actuator without a Controller)
- Shipping Bag
- Any Combination of Additional Options that Don't Have an Option Code Pre-assigned

Product Style

A = Style A
B = Style B
C = Style C

Features and Benefits

Standard Features

- **High Efficiency** – High efficiency units reach as high as 11.5 EER. Gas/electric units have electronic spark ignition and power vented combustion with steady state efficiencies of 80%. These efficiencies exceed all legislated minimum levels and provide low operating costs.
- **Service Friendly** – The Predator® incorporates a number of enhancements which improve serviceability.

  The motor and blower slide out of the unit as a common assembly. This facilitates greater access to all the indoor airflow components, thus simplifying maintenance and adjustment.

  Service time is reduced through the use of hinged, toolless panels. Such panels provide access to frequently inspected components and areas, including the control box, compressors, filters, indoor motor & blower, and the heating section. The panels are screwed in place at the factory to prevent access by children or other unauthorized persons. It is recommended that the panels be secured with screws once service is complete.

  Service windows have been placed in both condenser section walls. Rotation of the cover allows easy access to the condenser coils for cleaning or inspection.

  Both the unit control board and ignition control board utilize flash codes to aid in diagnosis of unit malfunctions. Unique alarm codes quickly identify the source of the unit alarm.

  All units use the same standard filter size. This standardization removes any confusion on which filter sizes are needed for replacement.

  The non-corrosive drain pan slides out of the unit to permit easy cleaning. The drain pan is accessed by removing the drain pan cover plate on the rear of the unit. Once the plate is removed, the drain pan slides out through the rear of the unit.

  All Predator® units have a second model nameplate located inside the control access door. This is to prevent deterioration of the nameplate through weathering.
- **Environmentally Aware** – For improved Indoor Air Quality, foil faced insulation is used exclusively throughout the units.
- **Balanced Heating** – The Predator® offers “Ultimate Heating Comfort” with a balance between 1st and 2nd stage gas heating. The first stage of a gas heat Predator® unit provides 60% of the heating capacity. Balanced heating allows the unit to better maintain desired temperatures.
- **Convertible Airflow Design** – The side duct openings are covered when they leave the factory. If a side supply/return is desired, the installer simply removes the two side duct covers from the outside of the unit and installs them over the down shot openings. No panel cutting is required. Convertible airflow design allows maximum field flexibility and minimum inventory.
- **System Protection** - Suction line freezestats are supplied on all units to protect against loss of charge and coil frosting when the economizer operates at low outdoor air temperatures while the compressors are running. Every unit has solid-core liquid line filter-driers and high and low-pressure switches. Internal compressor protection is standard on all compressors. Crankcase heaters are standard on reciprocating compressors. Scroll compressors do not require crankcase heaters. Phase Monitors are standard on units with scroll compressors. This accessory monitors the incoming power to the unit and protects the unit from phase loss and reversed phase rotation.
- **Advanced Controls** - Simplicity® control boards have standardized a number of features previously available only as options or by utilizing additional controls.
  - **Low Ambient** - An integrated low-ambient control allows all units to operate in the cooling mode down to 0°F outdoor ambient without additional assistance. Optionally, the control board can be programmed to lockout the compressors when the outdoor air temperature is low or when free cooling is available.

⚠ CAUTION

The Simplicity® control board used in this product will effectively operate the cooling system down to 0°F when this product is applied in a comfort cooling application for people. An economizer is typically included in this type of application. When applying this product for process cooling applications (computer rooms, switchgear, etc.), please reference applications bulletin AE-011-07 or call the applications department for Unitary Products @ 1-877-UPG-SERV for guidance. Additional accessories may be needed for stable operation at temperatures below 30° F.

  - **Anti-Short Cycle Protection** - To aid compressor life, an anti-short cycle delay is incorporated into the standard controls. Compressor reliability is further ensured by programmable minimum run times. For testing, the anti-short cycle delay can be temporarily overridden with the push of a button.
  - **Fan Delays** - Fan on and fan off delays are fully programmable. Furthermore, the heating and cooling fan delay times are independent of one another. All units are programmed with default values based upon their configuration of cooling and heat.
  - **Safety Monitoring** - The control board monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, compressor lockouts and repeated limit switch trips.
  - **Nuisance Trip Protection and Strikes** - To prevent nuisance trouble calls, the control board uses a “three times, you’re out” philosophy. The high and low-pressure switches and the freezestats must trip three times within two hours before the unit control board will lock out the associated compressor.
  - **On Board Diagnostics** - Each alarm will energize a trouble light on the thermostat, if so equipped, and

flash an alarm code on the control board LED. Each high and low-pressure switch alarm as well as each freezestat alarm has its own flash code. The control board saves the five most recent alarms in memory, and these alarms can be reviewed at any time. Alarms and programmed values are retained through the loss of power.

- **Reliable** – From the beginning – All units undergo computer automated testing before they leave the factory. Units are tested for refrigerant charge and pressure, unit amperage, and 100% functionality. For the long term – All Predator® units are painted with a long lasting, powder paint that stands up over the life of the unit. The paint used has been proven by a 1000 hour salt spray test.
- **Flexible Placement** – All models and configurations share the same cabinet/footprint and thus the same roof curb. You have the flexibility to set one curb and choose the correct tonnage size and heating option after the internal loads have been determined.

  To further simplify planning and installation, Predator® ZH/ZR/XP cabinets are designed to fit your roof. With the optional roof curb, the unit ductwork is designed to fit around 24” on-center joists or between 48” on-center joists.

  The drain pan can be rotated to drain to either the front or the rear of the unit. Additionally, the drain pan can be fitted to drain through the roof curb. As it is sometimes difficult to have a level installation, the drain pan features a generous slope to ensure proper drainage.
- **Full Perimeter Base Rails** – The permanently attached base rails provide a solid foundation for the entire unit and protect the unit during shipment. The rails offer forklift access from 3 sides, and rigging holes are available so that an overhead crane can be used to place the units on a roof.
- **Easy Installation** – Gas and electric utility knockouts are supplied in the unit underside as well as the side of the unit. A clearly identified location is provided to mount a field supplied electrical disconnect switch. Utility connections can be made quickly and with a minimum amount of field labor.

  All units are shipped with 2” throw-away filters installed.
- **Wide Range of Indoor Airflows** – All indoor fan motors are belt-drive type providing maximum flexibility to handle most airflow requirements. For high static applications, factory installed alternate indoor fan motors are available. With the optional indoor fan motor, all units can supply nominal airflow at a minimum of 1.5” ESP.
- **Warranty** - All models include a 1-year limited warranty on the complete unit. Compressors and electric heater elements each carry a 5-year warranty. Aluminized steel and stainless steel tubular heat exchangers carry a 10-year warranty.

Factory Installed Options

YORK® offers several equipment options factory installed, for the Predator® line.

- **Optional Factory Installed Economizers** - Predator units offer a variety of optional factory installed economizers with low leak dampers. The outdoor air enthalpy sensor enables economizer operation if the outdoor enthalpy is less than the setpoint of the economizer logic module. See economizer options section to determine the correct economizer for your application.
  - **Downflow Economizer** - **(With barometric relief)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type, and is shipped installed and wired. The installer needs only to assemble and mount the outdoor air hood (Provided). The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO_2 input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
  - **Horizontal Economizer** - **(Without barometric relief)** - All features of the downflow economizer exist except you must order the duct mount barometric relief separately. **You must order a 1EH0408 if you are installing a power exhaust. You can order a 1RD0411 Barometric Relief for horizontal flow economizers only.**
  - **BAS Ready Economizer -(With barometric relief)** - The economizer is provided with an actuator that requires a 0-10V DC input from an external source (i.e., field installed building automation system controller). Power exhaust options are available. The economizer is 2% low leakage type with spring return and fully modulating dampers capable of introducing up to 100% outside air. Also include 2” pleated filters.
  - **Slab Economizer for Energy Recovery Ventilators**-**(With barometric relief and Fresh Air Hood)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type, and is shipped installed and wired. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO_2 input for demand ventilation.With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
- **Power Exhaust (Downflow only)** - This accessory installs in the unit with a down flow economizer.

- **Motorized Outdoor Air Damper** - The motorized outdoor air damper includes a slide-in/plug-in damper assembly with an outdoor air hood and filters. The outdoor air dampers open to the preset position when the indoor fan motor is energized. The damper has a range of 0% to 100% outdoor air entry. Factory installed option or field installed accessory.
- **Alternate Indoor Blower Motor** - For applications with high static restrictions, units are offered with optional indoor motors that provide higher static output and/or higher airflow, depending upon the installer's needs.
- **Aluminized Steel Gas Heat Exchanger** - For applications in non-corrosive environments.
- **Stainless Steel Gas Heat Exchanger** - For applications in corrosive environments, this option provides a full stainless steel heat exchanger assembly.
- **Stainless Steel Drain Pan -** An optional rust-proof stainless steel drain pan is available to provide years of trouble-free operation in corrosive environments.
- **Electric Heaters** - The electric heaters range from 9kW to 54kW and are available in all the voltage options of the base units. All heaters are dual staged. All heaters are intended for single point power supply.
- **Disconnect Switch** - For gas heat units and cooling units with electric heat, a HACR breaker sized to the unit is provided. For cooling only units, a switch sized to the largest electric heat available for the particular unit is provided. Factory installed option only.
- **Convenience Outlet - (Non-Powered/Powered)** - This option locates a 120V single-phase GFCI outlet with cover, on the corner of the unit housing adjacent to the compressors. The "Non-powered" option requires the installer to provide the 120V single-phase power source and wiring. The "Powered" option is powered by a stepdown transformer in the unit. Factory installed option only.
- **Smoke Detectors** - The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment. Available for both the supply and/or return air.

⚠WARNING

Factory installed smoke detectors in the return air, may be subjected to freezing temperatures during "off" times due to out side air infiltration. These smoke detectors have an operational limit of 32 °F to 131°F. Smoke detectors installed in areas that could be out side those limitations will have to be moved to prevent having false alarms.

- **Phase Monitors** - Designed to prevent unit damage. The phase monitor will shut the unit down in an out-of phase condition. **(Standard on units with Scroll Compressors.)**
- **Coil Guard** - Customers can purchase a coil guard kit to protect the condenser coil from damage. Additionally, this kit stops animals and foreign objects from entering the space between the inner condenser coil and the main cabinet. This is not a hail guard kit.
- **Dirty Filter Switch** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters. Factory installed option or field installed accessory.
- **Technicoat Condenser Coils** - The condenser coils are coated with a phenolic coating for protection against corrosion due to harsh environments.
- **Technicoat Evaporator Coil** - The evaporator coils are coated with a phenolic coating for protection against corrosion due to harsh environments.
- **Hot Gas Bypass -** Allows operation during low load conditions while avoiding coil frosting and damage to compressor. When suction pressure falls below valve setpoint, the valve modulates hot gas to the inlet of the evaporator.

Control Options

- **BAS - Building Automation System Controls Simplicity® INTELLI-Comfort™ Control -** The York® Simplicity® INTELLI-Comfort™ control is factory installed. It includes a supply air sensor, a return air sensor, and an outside air sensor. There are provisions for a field installed dirty filter indicator switch, an air-proving switch, an Outside Air Humidity sensor, a Return Air Humidity sensor, an Inside IAQ sensor, and an Outside Air IAQ sensor. Construction mode operation, 365-day real time clock with 7 day programming plus holiday scheduling is built-in. Two different modes of demand ventilation are achieved through the INTELLI-Comfort™ using CO_2 sensors. It uses an inside CO_2 sensor to perform Demand Ventilation. It can also use an Outside CO_2 sensor to perform Differential Demand Ventilation. It uses a Patented Comfort Ventilation algorithm to provide comfortable ventilation air temperature. The patented economizer-loading algorithm will protect the equipment when harsh operating conditions exist. Humidity in the occupied space or return duct can be monitored and controlled via humidity sensors and the on-board connection for hot gas re-heat system. It uses the INTELLI-Start™ algorithm to maximize energy savings by recovering the building from the Unoccupied Setpoints to the Occupied Setpoints just in time for the Occupied Time Period to begin. The Simplicity® INTELLI-Comfort™ balances space temperature, ventilation air temperature, CO_2 and humidity for ultimate comfort.
- **Simplicity® INTELLI-Comfort™ with ModLINC Control -** The York® Simplicity® INTELLI-Comfort™ with ModLINC control is factory installed. It includes all the features of the INTELLI-Comfort™ control with an additional control to translate communications from MODBUS to the BACnet MSTP protocol.
- **Novar® BAS Control -** The Novar® building automation system controller is factory installed. Incudes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **Johnson Controls BAS Control -** The Johnson Control YK-UNT-1126 building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.

- **CPC BAS Control -** The Computer Process Controls Model 810-3060 ARTC Advanced Rooftop building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch and air proving switch.
- **Honeywell BAS Control -** The Honeywell W7750C building automation system controller is factory installed. Includes air supply sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **York Commercial Comfort System (YCCS)** - Provides rooftop system integration for YCCS single zone and change-over bypass systems.

Field Installed Accessories

YORK® offers several equipment accessories for field installation, for the Predator® line.

- **Downflow Economizer** - **(With barometric relief)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO_2 input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
- **Horizontal Economizer** - **(Without barometric relief)** - All features of the downflow economizer exist except you must order the duct mount barometric relief separately. **You must order a 1EH0408 if you are installing a power exhaust. You can order a 1RD0411 Barometric Relief for horizontal flow economizer.**
- **Slab Economizer for Energy Recovery Ventilator**- **(Without barometric relief or Fresh Air Hood)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO_2 input for demand ventilation.With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.

  You can order 1EH0409 Barometric Relief/FA Hood for field installations without an ERV.
- **Dual Enthalpy Control, Accessory** - This kit contains the required components to convert a single enthalpy economizer to dual enthalpy.
- **Barometric Relief Damper** - Zero to 100% capacity barometric relief dampers for use with horizontal flow, or field installed slab economizers.
- **Power Exhaust** - This accessory installs in the unit with a down flow economizer. Power exhaust plugs into the connector in the unit bulkhead. **You must purchase 1EH0408 barometric relief when applying to a horizontal flow application.**
- **Manual Outdoor Air Damper** - Like the motorized outdoor air damper, each manual outdoor air damper includes a slide-in damper assembly with an outdoor air hood and filters. Customers have a choice of dampers with ranges of 0% to 100% or 0% to 35% outdoor air entry.
- **Motorized Outdoor Air Damper** - The motorized outdoor air damper includes a slide-in/plug-in damper assembly with an outdoor air hood and filters. The outdoor air dampers open to the preset position when the indoor fan motor is energized. The damper has a range of 0% to 100% outdoor air entry. Factory installed option or field installed accessory.
- **Smoke Detectors** - The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment.
- **CO_2 Sensor** - Senses CO_2 levels and automatically overrides the economizer when levels rise above the preset limits.
- **Dirty Filter Switch** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters.
- **Coil Guard -** Field installed decorative wire coil guard.
- **Hail Guard** - This kit includes a sloped hood which installs over the outside condenser coil and prevents damage to the coil fins from hail strikes. Field installed accessory only.
- **Flue Exhaust Extension Kit** - In locations with wind or weather conditions which may interfere with proper exhausting of furnace combustion products, this kit can be installed to prevent the flue exhaust from entering nearby fresh air intakes.
- **-60°F Gas Heat Kit** - For installations which require gas heat units to perform in low ambient temperatures, a gas section heating kit is available. This kit provides electric heat in the gas heat controls section to ensure the gas valve and controls will continue to function properly at extremely low temperatures.
- **Gas Heat High Altitude Kit** - This kit converts a gas heat unit to operate at high altitudes, 2,000 to 6,000 feet. Conversion kits are available for natural gas and propane.
- **Gas Heat Propane Conversion Kit** - This kit converts a gas-fired heater from natural gas to propane. It contains the main burner orifices and gas valve replacement springs.
- **Gas Piping Kit** - Contains pipe nipples, fittings and gas cock required for gas supply connection with external shut off.
- **Electric Heaters** - The electric heaters range from 9 kW to 54kW and are available in all the voltage options of the base units. All heaters are dual staged. Cooling units

include an adapter panel for easy installation of the electric heaters. Necessary hardware and connectors are included with the heaters. All heaters are intended for single point power supply.

- **Low Limit / Compressor Lockout Kit**
  - **Compressor Lockout (CLO):** To prevent mechanical (compressorized) operation of the unit during cold outdoor conditions where there is a risk of returning liquid refrigerant back to the compressors.
  - **Low Limit Control (LLC):** To prevent the supply air from dropping below a specified setpoint by utilizing the units first stage heating means when there is a demand for cooling during cold outside conditions.
- **Metal Frame Filter Kit -** Metal frame with polyester filter medium.
- **Permanent Filters** - Permanent filters are available.
- **Roof Curbs** - The roof curbs have insulated decks and are shipped disassembled The roof curbs are available in 8” and 14” heights. For applications with security concerns, burglar bars are available for the duct openings of the roof curbs.
- **Roof Curb Transition -** Single Piece Adapter (10” High) - Roof curbs for transitioning from Sunline™ units to Predator® units. Fits 7.5 to 12.5 Sunline™ roof curbs only.
- **Burglar Bars** - Mount in the supply and return openings to prevent entry into the duct work.
- **Thermostat** - The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units (with or without an economizer) operate with two-stage heat/two-stage cool or two-stage cooling only thermostats, depending upon unit configuration.

Accessories

Part Number	Description
1RC0470	Roof Curb, 8" Height
1RC0471	Roof Curb, 14" Height
1RC0472	Roof Curb, Transition (7.5 T through 12.5 T)
1BD0408	Burglar Bars, Downflow
2TP04520925	Electric Heat 9kW 230V
2TP04521825	Electric Heat 18kW 230V
2TP04522425	Electric Heat 24kW 230V
2TP04523625	Electric Heat 36kW 230V
2TP04525425	Electric Heat 54kW 230V
2TP04520946	Electric Heat 9kW 460V
2TP04521846	Electric Heat 18kW 460V
2TP04522446	Electric Heat 24kW 460V
2TP04523646	Electric Heat 36kW 460V
2TP04525446	Electric Heat 54kW 460V
2TP04520958	Electric Heat 9kW 575V
2TP04521858	Electric Heat 18kW 575V
2TP04522458	Electric Heat 24kW 575V
2TP04523658	Electric Heat 36kW 575V
2TP04525458	Electric Heat 54kW 575V
2TP04540925	Electric Heat 9kW 230V, 42" Tall Cabinet
2TP04541825	Electric Heat 18kW 230V, 42" Tall Cabinet
2TP04542425	Electric Heat 24kW 230V, 42" Tall Cabinet
2TP04543625	Electric Heat 36kW 230V, 42" Tall Cabinet
2TP04540946	Electric Heat 9kW 460V, 42" Tall Cabinet
2TP04541846	Electric Heat 18kW 460V, 42" Tall Cabinet
2TP04542446	Electric Heat 24kW 460V, 42" Tall Cabinet
2TP04543646	Electric Heat 36kW 460V, 42" Tall Cabinet
2TP04540958	Electric Heat 9kW 575V, 42" Tall Cabinet
2TP04541858	Electric Heat 18kW 575V, 42" Tall Cabinet
2TP04542458	Electric Heat 24kW 575V, 42" Tall Cabinet
2TP04543658	Electric Heat 36kW 575V, 42" Tall Cabinet
1FA0413	Manual Outside Air Damper 0-35%, Downflow (Incl. Hood, Damper & Filters, No Barometric Relief)
1FA0414	Manual Outside Air Damper 0-100%, Downflow (Incl. Hood, Damper & Filters, No Barometric Relief)
2MD04702724	Motorized Damper, Downflow (Incl. Hood, Damper & Filter, no Barometric Relief)
2MD04703324	Motorized Damper, Horizontal (Incl. Hood, Damper & Filter, no Barometric Relief)
2EE04705424	Economizer, Downflow (Incl. Barometric Relief & All Hoods)
2EE04705524	Economizer, Horizontal (Incl. Dampers & Hoods, no Barometric Relief)
2EE04705224	Economizer, Slab, Downflow (Incl. Dampers only no Hoods or Barometric Relief)
2EE04705624	"Downflow Economizer, Slab type for ERV (no Barometric Relief or FA hood)", 42" Tall Cabinet
2PE04703225	Power Exhaust, Downflow, 230V (For Units with Economizer only)
2PE04703246	Power Exhaust, Downflow, 460V(For Units with Economizer only)
2PE04703258	Power Exhaust, Downflow, 580V (For Units with Economizer only)

Accessories (Continued)

Part Number	Description
2EC04700924	Dual Enthalpy Control (Use with Single Enthalpy Economizer)
1EH0407	Hood Kit, Downflow Economizer (Included with all Downflow Economizers)
1RD0411	Barometric Relief Kit, Ductmount for Horizontal Application (Incl. Damper & Hood)
1EH0408	Barometric Relief Kit, Ductmount for Horizontal Application w/Power Exhaust (Incl. Damper & Hood)
1EH0409	Barometric Relief / Hood Kit, for Field Installed Slab Econ. w/o ERV (Incl. Barometric Relief & FA Hood)
2AQ04700424	CO2 Detector Unit Mount
2AQ04700324	CO2 Detector Space Mount
2SD04700424	Smoke Detector, Supply or Return (Return Not Available with Horizontal Economizer)
2MK04700624	Low Limit / Compressor Lockout Kit
1CG0419	Coil Guard (Electric / Electric & HP models), 8-1/2 and 10 Ton
1CG0420	Coil Guard (Gas / Electric models), 8-1/2 and 10 Ton
1CG0424	Coil Guard (Electric / Electric and HP models), 12-1/2 Ton
1CG0425	Coil Guard (Gas / Electric models), 12-1/2 Ton
1CG0427	Coil Guard (Electric / Electric & HP Models), 6-1/2 and 7-1/2 Ton
1CG0428	Coil Guard (Gas / Electric Models), 6-1/2 and 7-1/2 Ton
1HG0411	Hail Guard Kit
1HG0415	Hail Guard Kit, 42" Tall Cabinet
1GP0405	Gas Piping Kit
1NP0442	Propane Conversion Kit
1HA0442	High Altitude Kit for Natural Gas
1HA0443	High Altitude Kit for Propane
1FE0412	Flue Exhaust Extension Kit
2BC04700106	Gas Heat Kit, -60 deg F, 230V
2BC04700151	Gas Heat Kit, -60 deg F, 460V
2BC04700154	Gas Heat Kit, -60 deg F, 575V
1FL0402	Permanent Filter Kit
1FL0423	Permanent Filter Kit, 42" Tall Cabinet
2DF0401	Dirty Filter Switch
1FF0410	Filter Frame Kit, Metal
1FF0411	Metal Filter Frame Kit, 42" Tall Cabinet

Guide Specifications

GENERAL

Units shall be manufactured by York International Unitary Products in an ISO 9001 certified facility. YORK® Predator® units are convertible single packages with a common footprint cabinet and common roof curb for all 6-1/2 through 12-1/2 ton models. All units have two compressors with independent R-410a refrigeration circuits to provide 2 stages of cooling. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, or frame. All Predator® units are self-contained and assembled on rigid full perimeter base rails allowing for 3-way forklift access and overhead rigging. Every unit is completely charged with R-410a, wired, piped, and tested at the factory to provide a quick and easy field installation. All units are convertible between side and down airflow. Independent economizer designs are used on side and down discharge applications, as well as all tonnage sizes. Predator® units are available in the following configurations: cooling only, cooling with electric heat, cooling with gas heat, heat pump, and heat pump with electric heat. Electric heaters are available as factory-installed options or field-installed accessories.

DESCRIPTION

Units shall be factory assembled, single package, (Elec/Elec, Gas/Elec), designed for outdoor installation. They shall have built in field convertible duct connections for down discharge supply/return or horizontal discharge supply/return and be available with factory installed options or field installed accessories. The units shall be factory wired, piped and charged with R-410a refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. The cooling performance shall be rated in accordance with DOE and ARI test procedures. Units shall be CSA certified to ANSI Z21.47 and UL 1995/CAN/CSA No. 236-M90 standards.

UNIT CABINET

Unit cabinet shall be constructed of G90 galvanized steel with exterior surfaces coated with a non-chalking, powder paint finish, certified at 1000 hour salt spray test per ASTM-B117 standards. Indoor blower sections shall be insulated with up to 1” thick insulation coated on the airside. Aluminum foil faced insulation shall be used in the unit’s compartments and be fastened to prevent insulation from entering the air stream. Cabinet doors shall be hinged with toolless access for easy servicing and maintenance. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, fork truck access and proper sealing on roof curb applications. Disposable 2” filters shall be furnished and be

accessible through hinged access door. Fan performance measuring ports shall be provided on the outside of the cabinet to allow accurate air measurements of evaporator fan performance without removing panels or creating bypass of the coils. Condensate pan shall be slide out design, constructed of a non corrosive material, internally sloped and conforming to ASHRAE 62-B9 standards. Condensate connection shall be a minimum of ¾" I.D. female and be rigid mount connection.

INDOOR (EVAPORATOR) FAN ASSEMBLY

Fan shall be a belt drive assembly and include an adjustable pitch motor pulley. Job site selected brake horsepower shall not exceed the motors nameplate horsepower rating plus the service factor. Units shall be designed to operate within the service factor. Fan wheel shall be double inlet type with forward curve blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Entire blower assembly and motor shall be slide out design.

OUTDOOR (CONDENSER) FAN ASSEMBLY

The outdoor fans shall be of the direct drive type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider brackets and shall be dynamically balanced for smooth operation. The outdoor fan motors shall have permanently lubricated bearings internally protected against overload conditions and staged independently. A cleaning window shall be provided on two sides of the units for coil cleaning.

REFRIGERANT COMPONENTS

Compressors:

a. Shall be fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of + or – 10% of the unit nameplate voltage.

b. Shall have internal spring isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

a. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed. Special Phenolic coating shall be available as a factory option.

b. Evaporator and condenser coils shall be of the direct expansion, draw-thru design.

Refrigerant Circuit and Refrigerant Safety Components shall include:

a. Independent fixed-orifice or thermally operated expansion devices.

b. Solid core filter drier/strainer to eliminate any moisture or foreign matter.

c. Accessible service gage connections on both suction and discharge lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting, without losing charge.

d. The unit shall have two independent refrigerant circuits, equally split in 50% capacity increments.

Unit Controls:

a. Unit shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-volt transformer side.

b. Unit shall incorporate a lockout circuit which provides reset capability at the space thermostat or base unit should any of the following standard safety devices trip and shut off compressor:

c. Loss-of-charge/Low-pressure switch.
   - High-pressure switch.
   - Freeze-protection thermostat, evaporator coil. If any of the above safety devices trip, an LED (light-emitting diode) indicator shall flash a diagnostic code that indicates which safety switch has tripped.

d. Unit shall incorporate "AUTO RESET" compressor over temperature, over current protection.

e. Unit shall operate with conventional thermostat designs and have a low voltage terminal strip for easy hook-up.

f. Unit control board shall have on-board diagnostics and fault code display.

g. Standard controls shall include anti-short cycle and low voltage protection, and permit cooling operation down to 0 ºF.

h. Control board shall monitor each refrigerant safety switch independently.

i. Control board shall retain last 5 fault codes in non-volatile memory, which will not be lost in the event of a power loss.

GAS HEATING SECTION (IF EQUIPPED)

Heat exchanger and exhaust system shall be constructed of aluminized steel and shall be designed with induced draft combustion with post purge logic, energy saving direct spark ignition, and redundant main gas valve. The heat exchanger shall be of the tubular type, constructed of T1-40 aluminized steel for corrosion resistance and allowing minimum mixed air entering temperature of 40 ºF. Burners shall be of the in-shot type, constructed of aluminum-coated steel. All gas piping shall enter the unit cabinet at a single location, through either the side or bottom, without any field modifications. An integrated control board shall provide timed control of evaporator fan functioning and burner ignition. Heating section shall be provided with the following minimum protection:

a. Primary and auxiliary high-temperature limit switches.

b. Induced draft pressure sensor.

c. Flame roll out switch (manual reset).

d. Flame proving controls. Unit shall have two independent stages of capacity (60% 1st stage, 100% 2nd stage).

ELECTRIC HEATING SECTION (IF EQUIPPED)

An electric heating section, with nickel chromium elements, shall be provided in a range of 9 thru 54 KW, offering two states of capacity all sizes. The heating section shall have a primary limit control(s) (automatic reset) to prevent the heating element system from operating at an excessive temperature. The Heating Section assembly shall slide out of the unit for easy maintenance and service. Units with Electric Heating Sections shall be wired for a single point power supply with branch circuit fusing (where required).

UNIT OPERATING CHARACTERISTICS

Unit shall be capable of starting and running at 125 ºF outdoor temperature, exceeding maximum load criteria of ARI Standard 340/360. The compressor, with standard controls, shall be capable of operation down to 0 ºF outdoor temperature. Unit shall be provided with fan time delay to prevent cold air delivery before heat exchanger warms up. (Gas heat only)

ELECTRICAL REQUIREMENTS - All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

STANDARD LIMITED WARRANTIES - Compressor – 5 Years, Heat Exchanger – 10 Years, Elect. Heat Elem. – 5 Years, Parts – 1 Year

FACTORY INSTALLED OPTIONAL OUTDOOR AIR (Shall be made available by either/or):

- **ELECTRONIC ENTHALPY AUTOMATIC ECONOMIZER** – Outdoor and return air dampers that are interlocked and positioned by a fully-modulating, spring-return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in outdoor air to meet the minimum ventilation requirement of the conditioned space during normal operation. During economizer operation, a mixed-air temperature control shall modulate the outdoor and return air damper assembly to prevent the supply air temperature from dropping below 55 ºF. Changeover from compressor to economizer operation shall be provided by an integral electronic enthalpy control that feeds input into the basic module. The outdoor intake opening shall be covered with a rain hood that matches the exterior of the unit. Water eliminator/filters shall be provided. Simultaneous economizer/compressor operation is also possible. Dampers shall fully close on power loss. Available with barometric relief or power exhaust.
- **MOTORIZED OUTDOOR AIR DAMPERS** – Outdoor and return air dampers that are interlocked and positioned by a 2-position, spring-return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in the design CFM of outdoor air to meet the ventilation requirements of the conditioned space during normal operation. Whenever the indoor fan motor is energized, the dampers open up to one of two pre-selected positions – regardless of the outdoor air enthalpy. Dampers return to the fully closed position when the indoor fan motor is de-energized. Dampers shall fully close on power loss.

ADDITIONAL FACTORY INSTALLED OPTIONS

- **ALTERNATE INDOOR BLOWER MOTOR** – For applications with high restrictions, units are available with optional indoor blower motors that provide higher static output and/or higher airflow.
- **CONVENIENCE OUTLET (POWERED/NON-POWERED)**– Unit can be provided with an optional 120VAC GFCI outlet with cover on the corner of the unit housing the compressors.
- **ELECTRIC HEAT** - Electric Heaters range from 9 kW to 54 kW and are available in all the voltage options of the base unit.
- **PHASE MONITOR** - Designed to prevent damage in out-of-phase condition.
- **COIL GUARD** - Designed to prevent condenser coil damage.
- **BAS CONTROLS** - Include supply air sensor, return air sensor, dirty filter indicator and air proving switch.
- **DIRTY FILTER SWITCH** – This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high-pressure drop across the filters.
- **BREAKER** – An HACR breaker can be factory installed on gas heat units or cooling units with electric heat.
- **DISCONNECT SWITCH** - A disconnect can be factory installed on a cooling only units sized for the largest electric heat available.
- **STAINLESS STEEL HEAT EXCHANGER** – For applications in a corrosive environment, this option provides a full stainless steel heat exchanger assembly.
- **SMOKE DETECTOR** – A smoke detector can be factory mounted and wired in the supply and/or return air compartments.

OTHER PRE-ENGINEERED ACCESSORIES AVAILABLE

- **ROOF CURB** - 14” and 8” high, full perimeter knockdown curb, with hinged design for quick assembly.
- **BAROMETRIC RELIEF DAMPER** – (Unit mounted – Downflow, Duct Mounted – Horizontal) – Contains a rain hood, air inlet screen, exhaust damper and mounting hardware. Used to relieve internal air pressure through the unit during economizer operation.

- **PROPANE CONVERSION KIT** – Contains new orifices and gas valve springs to convert from natural to L.P. gas.
- **60ºF GAS HEAT KIT** – Provides an electric heat kit for the gas compartment for use in extreme low ambient conditions.
- **ECONOMIZER** (Downflow and Horizontal flow)
- **POWER EXHAUST** – (Unit mount – Downflow, Duct mount – Horizontal flow)
- **DUAL ENTHALPY KIT** - Provides a second input to economizer to monitor return air.

REHEAT MODE SEQUENCE OF OPERATION

The reheat control board allows the user to select two different modes of operation via a jumper connection on the board. (See Figure 3.) Each mode is described below.

“NORMAL” MODE

When the reheat control board (RCB) detects a need for dehumidification (24VAC) at "HUM" via the field supplied dehumidistat connected to RHTB-1 and RHTB-2 and there is not a call for cooling, it energizes the hot gas relay (HGR), which energizes the 3-way valve (SOL 3), the condenser coil valve (SOL 2), and de-energizes the reheat coil bleed valve (SOL 1). (In the ZR150, SOL 2 is only energized when the discharge pressure in circuit #1 rises above 400 psig and de-energizes SOL 2 after the discharge pressure falls below 320 psig. Both outdoor fans of circuit #1 in the ZR150 also disengage to conserve energy.) The Y1 signal is passed to the unit control board (UCB), which engages circuit # 1, resulting in circuit #1 reheat mode operation.

When the room thermostat calls for first stage cooling, with or without a call for dehumidification, the RCB senses a signal through "Y1", de-energizing the HGR, which de-energizes SOL 3 and SOL 2 and energizes SOL 1, engaging circuit #1, resulting in circuit #1 cooling mode operation.

When the room thermostat calls for second stage cooling, the RCB senses a signal through "Y1" & "Y2" and engages circuit #1 and circuit #2 in cooling mode.

Indoor blower operation is initiated upon a call for first stage cooling, second stage cooling or dehumidification.

Anytime there is a call for 2 stages of cooling, the unit will not operate in the reheat mode, even if there is a call for dehumidification at "HUM".

The unit will not operate in the reheat mode if there is any call for heating.

On units with economizers, the unit will not operate in the reheat mode if there is a call for cooling and the economizer is operating as first stage of cooling.

All safety devices function as previously described.

"ALTERNATE” MODE

When the RCB detects a need for dehumidification (24VAC) at "HUM" via the field supplied dehumidistat connected to RHTB-1 and RHTB-2, and there is not a call for cooling, it energizes the HGR, which energizes the SOL 3, SOL 2, and de-energizes SOL 1. (In the ZR150, SOL 2 is only energized when the discharge pressure in circuit #1 rises above 400 psig and de-energizes SOL 2 after the discharge pressure falls below 320 psig. Both outdoor fans of circuit #1 in the ZR150 also disengage to conserve energy.) The unit then operates with circuit #1 in reheat mode and circuit #2 in cooling mode.

When the room thermostat calls for first stage cooling while there is still a call for dehumidification, no operational change is made. The call for cooling is ignored and the unit continues to operate with circuit #1 in reheat mode and circuit #2 in cooling mode.

When the room thermostat calls for second stage cooling, the RCB senses a signal through "Y1" and "Y2" and de-energizes the HGR, which de-energizes SOL 3 and SOL 2, and energizes SOL 1. Both circuits operate in the cooling mode.

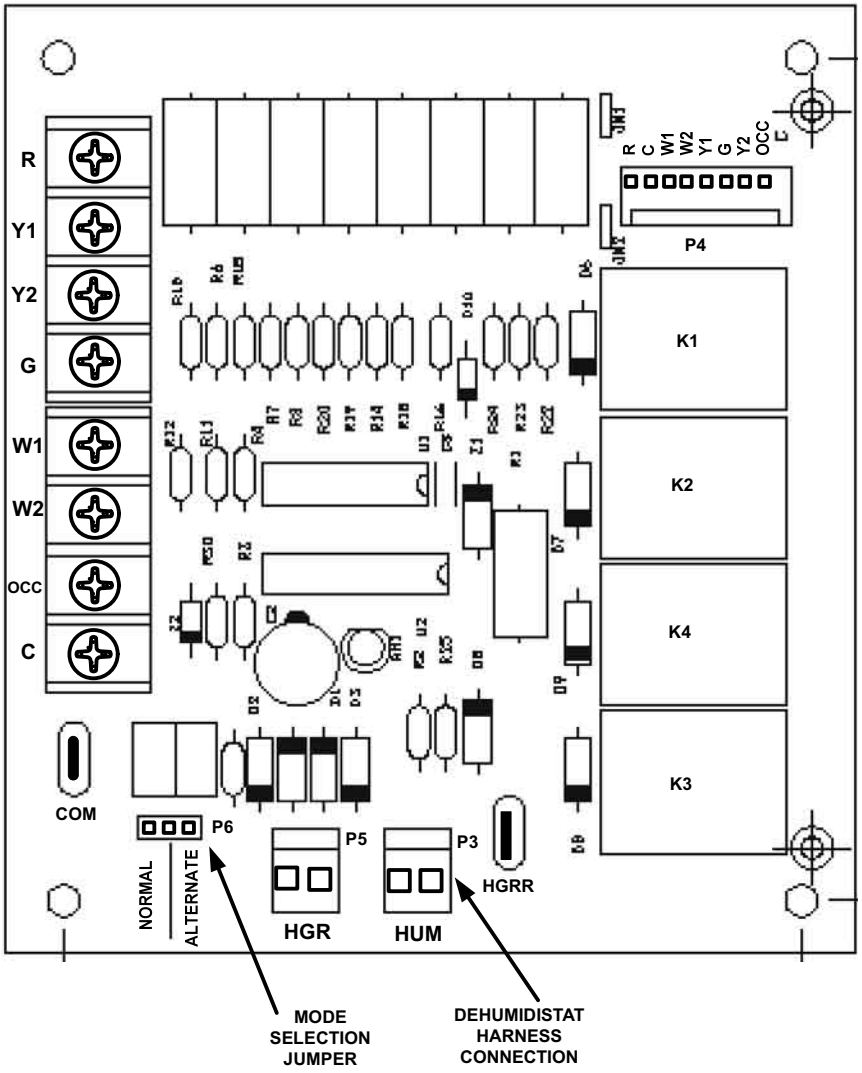
Indoor blower operation is initiated upon a call for first stage cooling, second stage cooling or dehumidification.

Anytime there is a call for 2 stages of cooling, the unit will not operate in the reheat mode, even if there is still a call for dehumidification at "HUM".

The unit will not operate in the reheat mode if there is any call for heating.

All safety devices function as previously described.

Reheat Control Board



Physical Data

ZH078-150 Physical Data

Component	Models									
	ZH078		ZH090		ZH102		ZH120		ZH150	
Nominal Tonnage	**6.5**		**7.5**		**8.5**		**10**		**12.5**	
ARI COOLING PERFORMANCE										
Gross Capacity @ ARI A point (Btu)	79000		93000		106000		126000		156000	
ARI net capacity (Btu)	76000		90000		102000		122000		150000	
EER	11.4		11.4		11.5		11.5		11.2	
SEER	-		-		-		-		-	
IPLV	12.7		12.4		12.4		12.1		12.7	
Nominal CFM	2600		3000		3400		4000		5000	
System power (KW)	6.67		7.90		8.87		10.61		13.40	
Refrigerant type	R-410a		R-410a		R-410a		R-410a		R-410a	
Refrigerant charge (lb-oz)										
System 1	9-4		8-8		11-8		11-8		19-8	
System 2	6-0		8-4		11-0		11-8		19-8	
ARI HEATING PERFORMANCE										
Heating model	10	15	10	15	10	15	15	20	15	20
Heat input (K Btu)	120	180	120	180	120	180	180	240	180	240
Heat output (K Btu)	96	144	96	144	96	144	144	192	144	192
AFUE %	-	-	-	-	-	-	-	-	-	-
Steady state efficiency (%)	80	80	80	80	80	80	80	80	80	80
No. burners	4	6	4	6	4	6	6	8	6	8
No. stages	2	2	2	2	2	2	2	2	2	2
Temperature Rise Range (ºF)	20-50	35-65	15-45	30-60	10-40	25-55	20-50	35-65	10-40	25-55
Gas Limit Setting (ºF)	165	165	165	165	215	195	195	160	195	160
Gas piping connection (in.)	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
DIMENSIONS (inches)										
Length	89		89		89		89		119-7/16	
Width	59		59		59		59		59	
Height	42		42		50-3/4		50-3/4		50-3/4	
OPERATING WT. (lbs.)	900		920		1135		1135		1400	
COMPRESSORS										
Type	Scroll		Scroll		Scroll		Scroll		Scroll	
Quantity	2		2		2		2		2	
Unit Capacity Steps (%)	50 / 100		50 / 100		50 / 100		50 / 100		50 / 100	
CONDENSER COIL DATA										
Face area (Sq. Ft.)	23.8		23.8		29.0		29.0		47.5	
Rows	2 / 1		2		2		2		2	
Fins per inch	20		20		20		20		15	
Tube diameter (in.)	3/8		3/8		3/8		3/8		3/8	
Circuitry Type	Split-face		Split-face		Split-face		Split-face		Split-face	
EVAPORATOR COIL DATA										
Face area (Sq. Ft.)	10.6		10.6		13.2		13.2		13.2	
Rows	3		3		4		4		4	
Fins per inch	15		15		15		15		15	
Tube diameter	0.375		0.375		0.375		0.375		0.375	
Circuitry Type	Split-face		Split-face		Split-face		Split-face		Split-face	
Refrigerant control	TXV		TXV		TXV		TXV		TXV	
CONDENSER FAN DATA										

ZH078-150 Physical Data (Continued)

Component	Models									
	ZH078		ZH090		ZH102		ZH120		ZH150	
Nominal Tonnage	**6.5**		**7.5**		**8.5**		**10**		**12.5**	
Quantity	2		2		2		2		4	
Fan diameter (Inch)	24		24		24		24		24	
Type	Prop		Prop		Prop		Prop		Prop	
Drive type	Direct		Direct		Direct		Direct		Direct	
No. speeds	1		1		1		1		1	
Number of motors	2		2		2		2		4	
Motor HP each	1/3		1/3		3/4		3/4		1/3	
RPM	850		850		1110		1110		850	
Nominal total CFM	6800		6800		8800		8800		14000	
BELT DRIVE EVAP FAN DATA										
Quantity	1		1		1		1		1	
Fan Size (Inch)	12 x 12		12 x 12		15 x 15		15 x 15		15 x 15	
Type	Centrifugal		Centrifugal		Centrifugal		Centrifugal		Centrifugal	
Motor Sheave	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VP56
Blower Sheave	AK74	AK64	AK74	AK61	AK89	AK74	AK84	AK74	AK74	BK77
Belt	A49	A49	A49	A49	A56	A54	A56	A54	A54	BX55
Motor HP each	1-1/2	2	1-1/2	3	2	3	2	3	3	5
RPM	1725	1725	1725	1725	1725	1725	1725	1725	1725	1725
Frame size	56	56	56	56	56	56	56	56	56	184T
FILTERS										
Quantity - Size	4 - 25 x 16 x 2		4 - 25 x 16 x 2		4 - 25 x 20 x 2		4 - 25 x 20 x 2		4 - 25 x 20 x 2	

ZR078-150 Physical Data

Component	Models									
	ZR078		ZR090		ZR102		ZR120		ZR150	
Nominal Tonnage	**6.5**		**7.5**		**8.5**		**10**		**12.5**	
ARI COOLING PERFORMANCE										
Gross Capacity @ ARI A point (Btu)	80000		91000		106000		125000		156000	
ARI net capacity (Btu)	78000		88000		102000		120000		150000	
EER	11.2		11.2		11.2		11.2		11.2	
SEER	-		-		-		-		-	
IPLV	13.0		12.3		12.3		12.3		12.7	
Nominal CFM	2600		3000		3400		4000		5000	
System power (KW)	6.96		7.86		9.11		10.71		13.39	
Refrigerant type	R-410a		R-410a		R-410a		R-410a		R-410a	
Refrigerant charge (lb-oz)										
System 1	9-0		9-12		11-8		12-0		18-8	
System 2	5-8		8-8		11-0		10-8		18-8	
ARI HEATING PERFORMANCE										
Heating model	10	15	10	15	10	15	15	20	15	20
Heat input (K Btu)	120	180	120	180	120	180	180	240	180	240
Heat output (K Btu)	96	144	96	144	96	144	144	192	144	192
AFUE %	-	-	-	-	-	-	-	-	-	-
Steady state efficiency (%)	80	80	80	80	80	80	80	80	80	80
No. burners	4	6	4	6	4	6	6	8	6	8
No. stages	2	2	2	2	2	2	2	2	2	2
Temperature Rise Range (ºF)	20-50	35-65	15-45	30-60	10-40	25-55	20-50	35-65	10-40	25-55
Gas Limit Setting (ºF)	165	165	165	165	215	195	195	160	195	160
Gas piping connection (in.)	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
DIMENSIONS (inches)										
Length	89		89		89		89		119-7/16	
Width	59		59		59		59		59	
Height	42		42		50-3/4		50-3/4		50-3/4	
OPERATING WT. (lbs.)	965		965		1200		1200		1465	
COMPRESSORS										
Type	Scroll		Scroll		Scroll		Scroll		Scroll	
Quantity	2		2		2		2		2	
Unit Capacity Steps (%)	50 / 100		50 / 100		50 / 100		50 / 100		50 / 100	
CONDENSER COIL DATA										
Face area (Sq. Ft.)	23.8		23.8		29.0		29.0		47.5	
Rows	2 / 1		2		2		2		2	
Fins per inch	20		20		20		20		15	
Tube diameter (in.)	3/8		3/8		3/8		3/8		3/8	
Circuitry Type	Split-face		Split-face		Split-face		Split-face		Split-face	
EVAPORATOR COIL DATA										
Face area (Sq. Ft.)	10.6		10.6		13.2		13.2		13.2	
Rows	3		3		4		4		4	
Fins per inch	15		15		15		15		15	
Tube diameter	3/8		3/8		3/8		3/8		3/8	
Circuitry Type	Split-face		Split-face		Split-face		Split-face		Split-face	
Refrigerant control	TXV		TXV		TXV		TXV		TXV	

ZR078-150 Physical Data (Continued)

Component	Models									
	ZR078		ZR090		ZR102		ZR120		ZR150	
Nominal Tonnage	**6.5**		**7.5**		**8.5**		**10**		**12.5**	
REHEAT COIL DATA										
Face area (Sq. Ft.)	6.66		6.66		10		10		10	
Rows	2		2		2		2		2	
Fins per inch	13		13		13		13		13	
Tube diameter (in.)	3/8		3/8		3/8		3/8		3/8	
CONDENSER FAN DATA										
Quantity	2		2		2		2		4	
Fan diameter (Inch)	24		24		24		24		24	
Type	Prop		Prop		Prop		Prop		Prop	
Drive type	Direct		Direct		Direct		Direct		Direct	
No. speeds	1		1		1		1		1	
Number of motors	2		2		2		2		4	
Motor HP each	1/3		1/3		1/3		1/3		1/3	
RPM	850		850		850		850		850	
Nominal total CFM	6800		6800		6800		6800		14000	
BELT DRIVE EVAP FAN DATA										
Quantity	1		1		1		1		1	
Fan Size (Inch)	12 x 12		12 x 12		15 x 15		15 x 15		15 x 15	
Type	Centrifugal		Centrifugal		Centrifugal		Centrifugal		Centrifugal	
Motor Sheave	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VP56
Blower Sheave	AK74	AK64	AK74	AK61	AK89	AK74	AK84	AK74	AK74	BK77
Belt	A49	A49	A49	A49	A56	A54	A56	A54	A54	BX55
Motor HP each	1-1/2	2	1-1/2	3	2	3	2	3	3	5
RPM	1725	1725	1725	1725	1725	1725	1725	1725	1725	1725
Frame size	56	56	56	56	56	56	56	56	56	184T
FILTERS										
Quantity - Size	4 - 25 x 16 x 2		4 - 25 x 16 x 2		4 - 25 x 20 x 2		4 - 25 x 20 x 2		4 - 25 x 20 x 2	

XP078-150 Physical Data

Component	Models				
	XP078	XP090	XP102	XP120	XP150
Nominal Tonnage	**6.5**	**7.5**	**8.5**	**10**	**12.5**
ARI COOLING PERFORMANCE					
Gross Capacity @ ARI A point (Btu)	80000	95000	104000	122000	156000
ARI net capacity (Btu)	78000	92000	100000	118000	150000
EER	11.0	11.0	11.0	11.0	11.0
SEER	-	-	-	-	-
IPLV	12.4	12.4	12.4	12.4	11.9
Nominal CFM	2600	3000	3400	4000	5000
System power (KW)	7.10	8.35	9.10	10.70	13.60
Refrigerant type	R-410a	R-410a	R-410a	R-410a	R-410a
Refrigerant charge (lb-oz)					
System 1	9-0	9-8	13-8	14-0	16-0
System 2	9-4	9-0	13-0	14-0	16-0
ARI HEATING PERFORMANCE					
47°F capacity rating (MBH)	78.0	92.0	94.0	110.0	144.0
System power (KW) / COP	6.5 / 3.50	7.6 / 3.50	7.8 / 3.50	9.2 / 3.50	13.2 / 3.20
17°F capacity rating (MBH	48.0	55.0	57.0	66.0	90.0
System power (KW) / COP	6.2 / 2.30	7.0 / 2.30	7.3 / 2.30	8.3 / 2.30	11.9 / 2.20
HSPF (Btu/Watts-hr)	-	-	-	-	-
DIMENSIONS (inches)					
Length	89	89	89	89	119-7/16
Width	59	59	59	59	59
Height	42	42	50-3/4	50-3/4	50-3/4
OPERATING WT. (lbs.)	920	920	1135	1135	1400
COMPRESSORS					
Type	Scroll	Scroll	Scroll	Scroll	Scroll
Quantity	2	2	2	2	2
Unit Capacity Steps (%)	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100
CONDENSER COIL DATA					
Face area (Sq. Ft.)	23.8	23.8	29.0	29.0	47.5
Rows	2	2	2	2	2
Fins per inch	20	20	20	20	15
Tube diameter (in.)	3/8	3/8	3/8	3/8	3/8
Circuitry Type	Split-face	Split-face	Split-face	Split-face	Split-face
EVAPORATOR COIL DATA					
Face area (Sq. Ft.)	10.6	10.6	13.2	13.2	13.2
Rows	3	3	4	4	4
Fins per inch	15	15	15	15	15
Tube diameter	3/8	3/8	3/8	3/8	3/8
Circuitry Type	Split-face	Split-face	Split-face	Split-face	Split-face
Refrigerant control	TXV	TXV	TXV	TXV	TXV

XP078-150 Physical Data (Continued)

Component	Models									
	XP078		XP090		XP102		XP120		XP150	
Nominal Tonnage	**6.5**		**7.5**		**8.5**		**10**		**12.5**	
REHEAT COIL DATA										
Quantity	2		2		2		2		4	
Fan diameter (Inch)	24		24		24		24		24	
Type	Prop		Prop		Prop		Prop		Prop	
Drive type	Direct		Direct		Direct		Direct		Direct	
No. speeds	1		1		1		1		1	
Number of motors	2		2		2		2		4	
Motor HP each	1/3		1/3		1/3		1/3		1/3	
RPM	850		850		850		850		850	
Nominal total CFM	6800		6800		6800		6800		14000	
CONDENSER FAN DATA										
Quantity	2		2		2		2		4	
Fan diameter (Inch)	24		24		24		24		24	
Type	Prop		Prop		Prop		Prop		Prop	
Drive type	Direct		Direct		Direct		Direct		Direct	
No. speeds	1		1		1		1		1	
Number of motors	2		2		2		2		4	
Motor HP each	1/3		1/3		1/3		1/3		1/3	
RPM	850		850		850		850		850	
Nominal total CFM	6800		6800		6800		6800		14000	
BELT DRIVE EVAP FAN DATA										
Quantity	1		1		1		1		1	
Fan Size (Inch)	12 x 12		12 x 12		15 x 15		15 x 15		15 x 15	
Type	Centrifugal		Centrifugal		Centrifugal		Centrifugal		Centrifugal	
Motor Sheave	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VM50	1VP56
Blower Sheave	AK74	AK64	AK74	AK61	AK89	AK74	AK84	AK74	AK74	BK77
Belt	A49	A49	A49	A49	A56	A54	A56	A54	A54	BX55
Motor HP each	1-1/2	2	1-1/2	3	2	3	2	3	3	5
RPM	1725	1725	1725	1725	1725	1725	1725	1725	1725	1725
Frame size	56	56	56	56	56	56	56	56	56	184T
FILTERS										
Quantity - Size	4 - 25 x 16 x 2		4 - 25 x 16 x 2		4 - 25 x 20 x 2		4 - 25 x 20 x 2		4 - 25 x 20 x 2	

ZH/ZR/XP078-150 Unit Limitations

Size (Tons)	Model	Unit Voltage	Unit Limitations		
			Applied Voltage		Outdoor DB Temp
			Min	Max	Max (°F)
078 (6.5)	ZH/ZR/XP	208/230-3-60	187	252	125
		460-3-60	432	504	125
		575-3-60	540	630	125
090 (7.5)	ZH/ZR/XP	208/230-3-60	187	252	125
		460-3-60	432	504	125
		575-3-60	540	630	125
102 (8.5)	ZH/ZR/XP	208/230-3-60	187	252	125
		460-3-60	432	504	125
		575-3-60	540	630	125

ZH/ZR/XP078-150 Unit Limitations

Size (Tons)	Model	Unit Voltage	Unit Limitations		
			Applied Voltage		Outdoor DB Temp
			Min	Max	Max (°F)
120 (10)	ZH/ZR/XP	208/230-3-60	187	252	125
		460-3-60	432	504	125
		575-3-60	540	630	125
150 (12.5)	ZH/ZR/XP	208/230-3-60	187	252	125
		460-3-60	432	504	125
		575-3-60	540	630	125

Capacity Performance

ZH078-150 Cooling Capacities

ZH078 (6.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
1625	77	100.5	4.5	42.8	33.7	25.9	-	-	-	94.8	5.2	39.6	32.0	24.3	-	-	-
	72	91.5	4.5	53.4	45.6	37.8	30.0	-	-	86.2	5.2	51.3	43.7	36.0	28.4	-	-
	67	82.5	4.4	63.9	57.4	49.6	41.8	34.0	-	77.5	5.1	63.0	55.4	47.7	40.0	32.4	-
	62	78.1	4.4	78.1	72.3	61.3	53.5	45.7	37.9	73.0	5.1	73.0	70.1	58.7	51.0	43.4	35.7
1950	77	104.3	4.6	46.3	37.5	28.7	-	-	-	98.0	5.2	44.3	35.6	26.9	-	-	-
	72	95.0	4.5	59.4	50.6	41.8	33.0	-	-	89.0	5.2	57.2	48.5	39.7	31.0	-	-
	67	85.6	4.5	72.5	63.7	54.9	46.1	37.3	-	80.1	5.2	70.1	61.4	52.6	43.9	35.2	-
	62	81.0	4.5	81.0	77.1	67.8	59.0	50.2	41.4	75.4	5.1	75.4	73.5	64.8	56.0	47.3	38.6
	57	78.6	4.5	78.6	78.3	69.5	60.7	51.9	43.1	75.4	5.1	75.4	74.4	65.7	57.0	48.3	39.5
2275	77	108.0	4.6	49.7	41.2	31.4	-	-	-	101.1	5.3	49.0	39.2	29.4	-	-	-
	72	98.4	4.6	65.4	55.6	45.8	36.0	-	-	91.9	5.2	63.1	53.3	43.5	33.7	-	-
	67	88.7	4.5	81.1	70.0	60.2	50.4	40.6	-	82.7	5.2	77.2	67.4	57.6	47.8	38.0	-
	62	83.9	4.5	83.9	81.9	74.3	64.5	54.7	44.9	77.9	5.2	77.9	76.9	70.8	61.0	51.2	41.4
	57	81.4	4.5	81.4	81.3	76.2	66.4	56.5	46.7	77.8	5.2	77.8	77.4	71.9	62.1	52.3	42.5
2600	77	111.8	4.6	53.2	45.0	34.2	-	-	-	104.3	5.3	53.6	42.8	31.9	-	-	-
	72	101.8	4.6	71.5	60.6	49.8	39.0	-	-	94.8	5.2	68.9	58.1	47.2	36.3	-	-
	67	91.8	4.6	89.7	76.3	65.5	54.6	43.8	-	85.3	5.2	84.2	73.4	62.5	51.6	40.8	-
	62	86.8	4.5	86.8	86.8	80.8	70.0	59.2	48.4	80.3	5.2	80.3	80.3	76.9	66.0	55.2	44.3
	57	84.3	4.6	84.3	84.3	82.8	72.0	61.2	50.4	80.3	5.2	80.3	80.3	78.0	67.2	56.3	45.4
2925	72	104.1	4.6	76.6	64.8	53.0	41.3	-	-	96.8	5.2	74.3	62.4	50.4	38.5	-	-
	67	93.8	4.6	92.8	81.5	69.7	57.9	46.1	-	87.1	5.2	86.6	78.7	66.8	54.9	42.9	-
	62	88.7	4.5	88.7	88.7	85.7	74.0	62.2	50.4	82.0	5.2	82.0	82.0	80.3	68.4	56.4	44.5
	57	86.2	4.6	86.2	86.2	85.4	73.7	61.9	50.1	82.0	5.2	82.0	82.0	80.8	68.9	57.0	45.1
3250	72	106.3	4.6	81.7	69.0	56.2	43.5	-	-	98.8	5.2	79.7	66.7	53.7	40.7	-	-
	67	95.9	4.6	95.9	86.6	73.9	61.2	48.4	-	88.9	5.2	88.9	84.1	71.1	58.1	45.1	-
	62	90.6	4.6	90.6	90.6	90.6	77.9	65.2	52.4	83.7	5.2	83.7	83.7	83.7	70.7	57.7	44.7
	57	88.1	4.6	88.1	88.1	88.1	75.3	62.6	49.8	83.7	5.2	83.7	83.7	83.7	70.7	57.7	44.7
		95°F								**105°F**							
1625	77	89.1	5.9	36.5	30.3	22.8	-	-	-	82.2	6.9	31.8	27.9	20.7	-	-	-
	72	80.8	5.9	49.3	41.8	34.3	26.7	-	-	74.4	6.7	46.5	39.2	31.9	24.6	-	-
	67	72.5	5.8	62.1	53.3	45.8	38.2	30.7	-	66.5	6.5	61.2	50.4	43.2	35.9	28.6	-
	62	67.9	5.8	67.9	67.9	56.1	48.6	41.0	33.5	62.2	6.5	62.2	62.2	51.0	43.7	36.4	29.1
1950	77	91.7	5.9	42.3	33.7	25.1	-	-	-	84.5	6.9	39.9	31.4	22.8	-	-	-
	72	83.1	5.9	55.0	46.4	37.7	29.1	-	-	76.4	6.7	52.4	43.8	35.2	26.7	-	-
	67	74.6	5.8	67.7	59.0	50.4	41.7	33.1	-	68.4	6.5	64.8	56.2	47.7	39.1	30.6	-
	62	69.9	5.8	69.9	69.9	61.7	53.1	44.4	35.8	63.9	6.5	63.9	63.9	56.3	47.7	39.2	30.6
	57	72.2	5.8	72.2	70.6	61.9	53.3	44.6	36.0	66.6	6.5	66.6	64.8	56.2	47.7	39.1	30.6
2275	77	94.2	5.9	48.2	37.1	27.3	-	-	-	86.8	6.9	48.1	34.8	25.0	-	-	-
	72	85.5	5.9	60.7	50.9	41.2	31.4	-	-	78.5	6.7	58.2	48.4	38.6	28.7	-	-
	67	76.7	5.8	73.2	64.7	55.0	45.2	35.4	-	70.2	6.6	68.4	62.0	52.2	42.3	32.5	-
	62	71.8	5.8	71.8	71.8	67.3	57.6	47.8	38.0	65.6	6.5	65.6	65.6	61.6	51.7	41.9	32.1
	57	74.2	5.8	74.2	73.4	67.6	57.8	48.0	38.2	68.4	6.5	68.4	67.5	61.5	51.7	41.9	32.0
2600	77	96.8	5.9	54.1	40.5	29.6	-	-	-	89.0	6.9	56.2	38.2	27.1	-	-	-
	72	87.8	5.9	66.4	55.5	44.6	33.7	-	-	80.5	6.8	64.1	53.0	41.9	30.8	-	-
	67	78.8	5.8	78.8	70.5	59.6	48.6	37.7	-	72.0	6.6	72.0	67.8	56.7	45.6	34.5	-
	62	73.8	5.8	73.8	73.8	73.0	62.1	51.1	40.2	67.3	6.5	67.3	67.3	66.9	55.8	44.7	33.6
	57	76.3	5.8	76.3	76.3	73.2	62.3	51.4	40.5	70.2	6.5	70.2	70.2	66.8	55.7	44.6	33.5
2925	72	89.5	5.9	72.0	60.0	47.9	35.8	-	-	81.9	6.8	69.4	57.1	44.9	32.7	-	-
	67	80.3	5.8	80.3	76.0	63.9	51.9	39.8	-	73.2	6.6	73.2	71.0	60.8	48.6	36.4	-
	62	75.2	5.8	75.2	75.2	74.8	62.8	50.7	38.6	68.4	6.5	68.4	68.4	68.2	56.0	43.8	31.6
	57	77.8	5.8	77.8	77.8	76.3	64.2	52.1	40.0	71.4	6.5	71.4	71.4	69.7	57.5	45.3	33.1
3250	72	91.3	5.9	77.6	64.4	51.1	37.9	-	-	83.2	6.8	74.6	61.3	48.0	34.7	-	-
	67	81.9	5.8	81.9	81.6	68.3	55.1	41.8	-	74.4	6.6	74.4	74.2	64.9	51.6	38.3	-
	62	76.7	5.8	76.7	76.7	76.7	63.5	50.2	37.0	69.5	6.5	69.5	69.5	69.5	56.2	42.9	29.6
	57	79.3	5.8	79.3	79.3	79.3	66.0	52.8	39.5	72.5	6.5	72.5	72.5	72.5	59.2	45.9	32.6

ZH078 (6.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
1625	77	75.4	7.9	27.1	25.6	18.6	-	-	-	68.5	8.9	27.1	21.3	16.5	-	-	-
	72	68.0	7.6	43.7	36.6	29.6	22.5	-	-	61.5	8.4	40.8	34.0	27.2	20.4	-	-
	67	60.5	7.3	60.2	47.6	40.6	33.5	26.5	-	54.6	8.0	54.6	44.8	38.0	31.2	24.4	-
	62	56.4	7.2	56.4	56.4	45.8	38.8	31.8	24.7	50.6	8.0	50.6	50.6	40.7	33.9	27.1	20.3
1950	77	77.4	7.9	37.5	29.1	20.6	-	-	-	70.2	8.9	38.3	26.7	18.4	-	-	-
	72	69.7	7.6	49.7	41.2	32.8	24.3	-	-	63.0	8.5	47.1	38.7	30.3	21.9	-	-
	67	62.1	7.3	61.9	53.4	45.0	36.5	28.0	-	55.9	8.0	55.9	50.7	42.3	33.9	25.5	-
	62	57.8	7.3	57.8	57.8	50.8	42.4	33.9	25.4	51.8	8.0	51.8	51.8	45.4	37.0	28.6	20.3
	57	61.0	7.2	61.0	59.0	50.6	42.1	33.6	25.2	55.4	7.9	55.4	53.3	44.9	36.5	28.2	19.8
2275	77	79.3	7.9	47.9	32.5	22.6	-	-	-	71.9	9.0	49.4	32.1	20.2	-	-	-
	72	71.5	7.6	55.8	45.9	36.0	26.1	-	-	64.5	8.5	53.3	43.4	33.4	23.5	-	-
	67	63.7	7.3	63.6	59.3	49.4	39.5	29.6	-	57.2	8.0	57.2	56.5	46.6	36.7	26.7	-
	62	59.3	7.3	59.3	59.3	55.8	45.9	36.0	26.2	53.1	8.0	53.1	53.1	50.0	40.1	30.2	20.2
	57	62.6	7.2	62.6	61.6	55.5	45.6	35.8	25.9	56.7	8.0	56.7	55.7	49.5	39.6	29.6	19.7
2600	77	81.3	8.0	58.4	35.9	24.6	-	-	-	73.5	9.0	60.5	37.5	22.1	-	-	-
	72	73.3	7.6	61.8	50.5	39.2	27.9	-	-	66.0	8.5	59.5	48.0	36.5	25.0	-	-
	67	65.3	7.3	65.3	65.1	53.8	42.5	31.2	-	58.5	8.0	58.5	58.5	50.9	39.4	27.9	-
	62	60.8	7.3	60.8	60.8	60.8	49.5	38.2	26.9	54.3	8.0	54.3	54.3	54.3	43.2	31.7	20.2
	57	64.1	7.3	64.1	64.1	60.5	49.2	37.9	26.6	58.1	8.0	58.1	58.1	54.1	42.6	31.1	19.6
2925	72	74.2	7.6	66.7	54.3	42.0	29.7	-	-	66.5	8.5	64.0	51.5	39.1	26.6	-	-
	67	66.1	7.3	66.1	66.0	57.6	45.3	33.0	-	59.0	8.0	59.0	59.0	54.5	42.0	29.6	-
	62	61.5	7.3	61.5	61.5	61.5	49.2	36.9	24.6	54.7	8.0	54.7	54.7	54.7	42.4	30.0	17.5
	57	64.9	7.3	64.9	64.9	63.1	50.8	38.4	26.1	58.5	8.0	58.5	58.5	56.5	44.1	31.6	19.2
3250	72	75.1	7.6	71.5	58.2	44.8	31.5	-	-	67.0	8.5	67.0	55.1	41.6	28.2	-	-
	67	66.9	7.3	66.9	66.9	61.5	48.1	34.8	-	59.4	8.0	59.4	59.4	58.1	44.7	31.2	-
	62	62.3	7.3	62.3	62.3	62.3	48.9	35.6	22.2	55.1	8.0	55.1	55.1	55.1	41.7	28.3	14.9
	57	65.7	7.3	65.7	65.7	65.7	52.4	39.0	25.7	58.9	8.0	58.9	58.9	58.9	45.5	32.1	18.7

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZH090 (7.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
1875	77	119.1	5.6	50.2	42.2	34.1	-	-	-	108.4	6.2	46.6	38.5	30.3	-	-	-
	72	107.7	5.5	63.0	54.9	46.8	38.7	-	-	99.3	6.1	59.4	51.3	43.2	35.1	-	-
	67	96.3	5.3	75.8	67.7	59.6	51.5	43.4	-	90.2	6.1	72.3	64.1	56.0	47.9	39.8	-
	62	91.3	5.3	91.3	88.6	75.9	67.8	59.7	51.6	83.9	6.0	83.9	82.5	70.3	62.1	54.0	45.9
2250	77	123.0	5.6	55.4	46.1	36.7	-	-	-	112.2	6.2	51.7	42.4	33.1	-	-	-
	72	111.2	5.5	69.1	59.8	50.5	41.2	-	-	102.7	6.1	65.7	56.4	47.1	37.7	-	-
	67	99.4	5.3	82.8	73.5	64.2	54.9	45.6	-	93.3	6.1	79.7	70.4	61.0	51.7	42.4	-
	62	94.2	5.3	94.2	92.4	81.8	72.5	63.2	53.9	86.8	6.0	86.8	85.9	76.6	67.2	57.9	48.6
	57	87.2	5.3	87.2	87.2	81.7	72.3	63.0	53.7	84.0	6.0	84.0	84.0	77.0	67.6	58.3	49.0
2625	77	126.8	5.6	60.5	50.0	39.4	-	-	-	115.9	6.2	56.9	46.3	35.8	-	-	-
	72	114.7	5.5	75.2	64.6	54.1	43.6	-	-	106.2	6.1	72.0	61.5	50.9	40.4	-	-
	67	102.5	5.3	89.9	79.3	68.8	58.3	47.7	-	96.5	6.1	87.2	76.6	66.1	55.5	45.0	-
	62	97.2	5.3	97.2	96.3	87.7	77.2	66.6	56.1	89.7	6.0	89.7	89.3	82.9	72.3	61.8	51.2
	57	89.9	5.3	89.9	89.9	87.5	77.0	66.5	55.9	86.8	6.0	86.8	86.8	83.3	72.7	62.2	51.7
3000	77	130.7	5.6	65.6	53.9	42.1	-	-	-	119.7	6.2	62.0	50.3	38.5	-	-	-
	72	118.1	5.5	81.3	69.5	57.8	46.0	-	-	109.6	6.2	78.3	66.6	54.8	43.1	-	-
	67	105.6	5.3	96.9	85.2	73.4	61.7	49.9	-	99.6	6.1	94.6	82.9	71.1	59.4	47.6	-
	62	100.1	5.3	100.1	100.1	93.6	81.8	70.1	58.3	92.6	6.0	92.6	92.6	89.2	77.4	65.7	53.9
	57	92.6	5.3	92.6	92.6	93.4	81.6	69.9	58.1	89.6	6.0	89.6	89.6	89.6	77.9	66.1	54.4
3375	72	120.9	5.8	86.4	74.0	61.6	49.2	-	-	111.3	6.3	83.7	71.0	58.4	45.8	-	-
	67	108.1	5.6	103.7	90.7	78.3	65.9	53.5	-	101.1	6.2	98.6	88.4	75.8	63.1	50.5	-
	62	102.4	5.6	102.4	102.4	99.2	86.8	74.4	62.0	94.0	6.2	94.0	94.0	92.3	79.7	67.0	54.4
	57	94.9	5.6	94.9	94.9	95.2	82.9	70.5	58.1	91.0	6.2	91.0	91.0	91.0	78.3	65.7	53.1
3750	72	123.6	6.1	91.5	78.4	65.4	52.4	-	-	112.9	6.5	89.0	75.5	62.0	48.5	-	-
	67	110.6	6.0	110.6	96.2	83.2	70.2	57.1	-	102.6	6.4	102.6	93.9	80.4	66.9	53.4	-
	62	104.8	5.9	104.8	104.8	104.8	91.7	78.7	65.7	95.4	6.3	95.4	95.4	95.4	81.9	68.3	54.8
	57	97.1	5.9	97.1	97.1	97.1	84.1	71.0	58.0	92.3	6.3	92.3	92.3	92.3	78.8	65.3	51.8
		95°F								**105°F**							
1875	77	97.7	6.9	42.9	34.8	26.6	-	-	-	92.8	7.7	37.6	32.1	24.0	-	-	-
	72	90.9	6.8	55.8	47.7	39.5	31.4	-	-	85.2	7.7	52.9	44.8	36.7	28.7	-	-
	67	84.2	6.8	68.7	60.6	52.4	44.3	36.1	-	77.7	7.6	68.1	57.5	49.5	41.4	33.4	-
	62	76.5	6.7	76.5	76.5	64.6	56.4	48.3	40.1	72.0	7.6	72.0	72.0	59.4	51.4	43.3	35.3
2250	77	101.3	6.9	48.1	38.8	29.4	-	-	-	95.7	7.7	45.3	35.9	26.6	-	-	-
	72	94.3	6.8	62.3	53.0	43.6	34.3	-	-	87.9	7.7	59.4	50.0	40.7	31.3	-	-
	67	87.3	6.8	76.6	67.2	57.9	48.5	39.2	-	80.1	7.6	73.5	64.1	54.8	45.4	36.0	-
	62	79.4	6.7	79.4	79.4	71.3	62.0	52.6	43.3	74.2	7.6	74.2	74.2	65.8	56.4	47.0	37.7
	57	80.8	6.7	80.8	80.8	72.2	62.9	53.5	44.2	75.6	7.6	75.6	75.3	66.3	57.0	47.6	38.2
2625	77	105.0	6.9	53.3	42.7	32.2	-	-	-	98.5	7.7	53.0	39.8	29.1	-	-	-
	72	97.7	6.8	68.9	58.3	47.8	37.2	-	-	90.5	7.7	65.9	55.2	44.6	33.9	-	-
	67	90.4	6.8	84.4	73.9	63.3	52.8	42.2	-	82.5	7.6	78.8	70.7	60.0	49.4	38.7	-
	62	82.2	6.7	82.2	82.2	78.0	67.5	57.0	46.4	76.4	7.6	76.4	76.4	72.1	61.4	50.8	40.1
	57	83.7	6.7	83.7	83.7	79.1	68.5	58.0	47.4	77.9	7.6	77.9	77.7	72.7	62.0	51.4	40.7
3000	77	108.6	6.9	58.4	46.7	35.0	-	-	-	101.4	7.7	60.7	43.7	31.7	-	-	-
	72	101.1	6.9	75.4	63.6	51.9	40.1	-	-	93.1	7.7	72.4	60.5	48.5	36.5	-	-
	67	93.6	6.8	92.3	80.5	68.8	57.1	45.3	-	84.9	7.7	84.2	77.3	65.3	53.3	41.3	-
	62	85.1	6.8	85.1	85.1	84.8	73.0	61.3	49.5	78.6	7.6	78.6	78.6	78.4	66.5	54.5	42.5
	57	86.6	6.8	86.6	86.6	85.9	74.1	62.4	50.6	80.1	7.6	80.1	80.1	79.1	67.1	55.1	43.2
3375	72	101.6	6.9	81.0	68.1	55.2	42.3	-	-	93.6	7.7	77.8	64.7	51.7	38.6	-	-
	67	94.1	6.8	93.4	86.1	73.2	60.3	47.5	-	85.3	7.7	85.0	80.8	69.6	56.5	43.5	-
	62	85.6	6.8	85.6	85.6	85.4	72.5	59.6	46.7	79.0	7.6	79.0	79.0	79.0	65.9	52.9	39.8
	57	87.1	6.8	87.1	87.1	86.7	73.8	60.9	48.1	80.6	7.6	80.6	80.6	80.1	67.0	54.0	40.9
3750	72	102.2	6.9	86.6	72.6	58.5	44.5	-	-	94.2	7.7	83.1	69.0	54.9	40.7	-	-
	67	94.6	6.8	94.6	91.7	77.6	63.6	49.6	-	85.8	7.7	85.8	84.4	73.9	59.8	45.6	-
	62	86.0	6.8	86.0	86.0	86.0	72.0	58.0	44.0	79.5	7.6	79.5	79.5	79.5	65.4	51.2	37.1
	57	87.5	6.8	87.5	87.5	87.5	73.5	59.5	45.5	81.0	7.6	81.0	81.0	81.0	66.9	52.8	38.6

ZH090 (7.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
				Return Dry Bulb (°F)								Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
1875	77	88.0	8.6	32.3	29.4	21.4	-	-	-	83.1	9.4	29.2	25.0	18.8	-	-	-
	72	79.6	8.5	49.9	41.9	34.0	26.0	-	-	73.9	9.4	46.9	39.1	31.2	23.3	-	-
	67	71.1	8.5	67.5	54.5	46.5	38.6	30.6	-	64.6	9.3	64.6	51.5	43.6	35.7	27.8	-
	62	67.4	8.5	67.4	67.4	54.3	46.3	38.3	30.4	62.8	9.3	62.8	62.8	49.1	41.2	33.3	25.5
2250	77	90.0	8.6	42.5	33.1	23.7	-	-	-	84.4	9.4	41.4	30.3	20.9	-	-	-
	72	81.4	8.5	56.4	47.1	37.7	28.3	-	-	75.0	9.4	53.5	44.1	34.7	25.3	-	-
	67	72.8	8.5	70.4	61.0	51.6	42.2	32.9	-	65.6	9.3	65.6	57.9	48.5	39.1	29.7	-
	62	69.0	8.5	69.0	69.0	60.2	50.8	41.4	32.1	63.8	9.3	63.8	63.8	54.7	45.3	35.9	26.5
	57	70.4	8.5	70.4	69.8	60.4	51.0	41.6	32.3	65.2	9.3	65.2	64.3	54.5	45.1	35.7	26.3
2625	77	92.1	8.6	52.7	36.9	26.1	-	-	-	85.6	9.4	53.6	35.6	23.0	-	-	-
	72	83.3	8.5	63.0	52.2	41.4	30.6	-	-	76.1	9.4	60.1	49.1	38.2	27.3	-	-
	67	74.5	8.5	73.3	67.5	56.7	45.9	35.1	-	66.5	9.3	66.5	64.3	53.4	42.5	31.6	-
	62	70.5	8.5	70.5	70.5	66.2	55.4	44.6	33.8	64.7	9.3	64.7	64.7	60.2	49.3	38.4	27.4
	57	72.0	8.5	72.0	71.7	66.4	55.6	44.8	34.0	66.1	9.3	66.1	65.7	60.0	49.1	38.2	27.3
3000	77	94.1	8.6	63.0	40.6	28.4	-	-	-	86.9	9.4	65.9	41.0	25.2	-	-	-
	72	85.1	8.5	69.5	57.3	45.1	32.9	-	-	77.1	9.4	66.6	54.2	41.7	29.3	-	-
	67	76.1	8.5	76.1	74.0	61.8	49.6	37.4	-	67.4	9.3	67.4	67.4	58.3	45.9	33.4	-
	62	72.1	8.5	72.1	72.1	72.1	59.9	47.7	35.5	65.6	9.3	65.6	65.6	65.6	53.3	40.9	28.4
	57	73.6	8.5	73.6	73.6	72.3	60.1	47.9	35.7	67.1	9.3	67.1	67.1	65.6	53.1	40.7	28.2
3375	72	85.6	8.5	74.6	61.4	48.1	34.9	-	-	77.7	9.4	71.4	58.0	44.6	31.2	-	-
	67	76.6	8.5	76.6	75.5	66.0	52.7	39.5	-	67.8	9.3	67.8	67.8	62.3	48.9	35.6	-
	62	72.5	8.5	72.5	72.5	72.5	59.3	46.1	32.9	66.0	9.4	66.0	66.0	66.0	52.7	39.3	25.9
	57	74.0	8.5	74.0	74.0	73.4	60.2	47.0	33.7	67.5	9.4	67.5	67.5	66.8	53.4	40.0	26.6
3750	72	86.2	8.6	79.6	65.4	51.2	36.9	-	-	78.2	9.4	76.2	61.8	47.5	33.2	-	-
	67	77.1	8.5	77.1	77.1	70.1	55.9	41.7	-	68.3	9.4	68.3	68.3	66.4	52.0	37.7	-
	62	73.0	8.5	73.0	73.0	73.0	58.8	44.5	30.3	66.5	9.4	66.5	66.5	66.5	52.1	37.8	23.5
	57	74.5	8.5	74.5	74.5	74.5	60.3	46.0	31.8	68.0	9.4	68.0	68.0	68.0	53.6	39.3	24.9

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZH102 (8.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
2125	77	125.2	6.6	57.1	45.0	35.0	-	-	-	122.5	7.0	54.2	44.2	34.2	-	-	-
	72	116.5	6.6	70.4	60.4	50.3	40.3	-	-	112.6	7.0	69.1	59.1	49.1	39.1	-	-
	67	107.7	6.6	83.6	75.7	65.6	55.6	45.6	-	102.7	7.0	84.1	74.0	64.0	54.0	44.0	-
	62	98.3	6.6	98.3	97.6	78.5	68.4	58.4	48.4	93.7	6.9	93.7	93.4	77.0	67.0	57.0	47.0
2550	77	130.8	6.5	62.2	50.6	39.0	-	-	-	127.0	7.0	61.1	49.5	37.9	-	-	-
	72	121.6	6.5	79.3	67.7	56.1	44.5	-	-	116.7	7.0	77.6	66.0	54.4	42.8	-	-
	67	112.5	6.5	96.4	84.8	73.2	61.6	50.0	-	106.4	7.0	94.1	82.5	70.9	59.3	47.7	-
	62	102.6	6.5	102.6	102.2	87.5	75.9	64.3	52.7	97.1	6.9	97.1	96.9	85.3	73.7	62.1	50.5
	57	100.7	6.5	100.7	100.7	89.3	77.7	66.1	54.5	97.1	6.9	97.1	97.1	85.7	74.1	62.5	50.9
2975	77	136.3	6.3	67.3	56.2	43.0	-	-	-	131.4	7.0	68.0	54.7	41.6	-	-	-
	72	126.8	6.3	88.2	75.0	61.9	48.7	-	-	120.8	7.0	86.0	72.8	59.7	46.5	-	-
	67	117.2	6.3	109.2	93.9	80.7	67.5	54.4	-	110.2	7.0	104.0	90.9	77.8	64.6	51.4	-
	62	106.9	6.3	106.9	106.7	96.5	83.3	70.2	57.0	100.5	6.9	100.5	100.4	93.6	80.4	67.3	54.1
	57	105.0	6.3	105.0	105.0	98.5	85.4	72.2	59.0	100.5	7.0	100.5	100.5	94.0	80.8	67.6	54.5
3400	77	141.9	6.2	72.4	61.8	47.0	-	-	-	135.9	7.0	74.9	60.0	45.3	-	-	-
	72	131.9	6.2	97.1	82.4	67.6	52.9	-	-	124.9	7.0	94.4	79.7	65.0	50.2	-	-
	67	121.9	6.2	121.9	103.0	88.3	73.5	58.8	-	113.9	7.0	113.9	99.4	84.6	69.9	55.2	-
	62	111.2	6.2	111.2	111.2	105.5	90.8	76.0	61.3	103.9	6.9	103.9	103.9	101.9	87.1	72.4	57.7
	57	109.3	6.2	109.3	109.3	107.7	93.0	78.2	63.5	103.9	7.0	103.9	103.9	102.3	87.5	72.8	58.1
3825	72	135.0	6.2	123.1	97.7	72.3	46.9	-	-	127.6	7.0	111.3	90.5	69.7	48.9	-	-
	67	124.8	6.2	124.8	115.3	94.3	68.9	43.5	-	116.4	7.0	116.4	109.1	90.8	70.0	49.2	-
	62	113.8	6.2	113.8	113.8	111.0	85.6	60.2	34.8	106.2	7.0	106.2	106.2	105.2	84.4	63.6	42.8
	57	111.8	6.2	111.8	111.8	111.0	85.6	60.3	34.9	106.2	7.0	106.2	106.2	105.4	84.6	63.8	43.0
4250	72	138.1	6.2	149.0	113.0	76.9	40.9	-	-	130.3	7.0	128.1	101.3	74.4	47.6	-	-
	67	127.6	6.2	127.6	127.6	100.4	64.3	28.3	-	118.9	7.0	118.9	118.9	97.0	70.2	43.3	-
	62	116.4	6.3	116.4	116.4	116.4	80.4	44.3	8.3	108.5	7.0	108.5	108.5	108.5	81.6	54.8	27.9
	57	114.4	6.2	114.4	114.4	114.4	78.3	42.3	6.2	108.5	7.0	108.5	108.5	108.5	81.6	54.8	27.9
		95°F								**105°F**							
2125	77	119.8	7.3	51.2	43.5	33.5	-	-	-	112.1	8.4	45.1	39.9	29.9	-	-	-
	72	108.7	7.3	67.9	57.9	47.9	37.9	-	-	101.7	8.4	64.7	54.8	44.8	34.9	-	-
	67	97.7	7.3	84.6	72.4	62.4	52.4	42.4	-	91.2	8.4	84.3	69.6	59.7	49.8	39.8	-
	62	89.1	7.2	89.1	89.1	75.6	65.6	55.6	45.6	83.4	8.3	83.4	83.4	72.8	62.9	53.0	43.0
2550	77	123.2	7.5	60.0	48.4	36.8	-	-	-	114.7	8.5	55.9	44.4	33.0	-	-	-
	72	111.8	7.5	75.8	64.3	52.7	41.1	-	-	104.0	8.5	72.3	60.8	49.3	37.9	-	-
	67	100.4	7.5	91.7	80.2	68.6	57.0	45.5	-	93.3	8.5	88.7	77.2	65.7	54.2	42.8	-
	62	91.6	7.4	91.6	91.6	83.1	71.6	60.0	48.4	85.3	8.4	85.3	85.3	80.2	68.7	57.2	45.7
	57	93.5	7.4	93.5	93.5	82.0	70.4	58.8	47.3	87.0	8.5	87.0	87.0	76.8	65.3	53.8	42.3
2975	77	126.5	7.6	68.7	53.3	40.2	-	-	-	117.3	8.6	66.7	49.0	36.0	-	-	-
	72	114.9	7.6	83.8	70.6	57.5	44.3	-	-	106.4	8.6	79.9	66.9	53.9	40.8	-	-
	67	103.2	7.6	98.8	88.0	74.8	61.7	48.5	-	95.4	8.6	93.1	84.8	71.7	58.7	45.7	-
	62	94.1	7.5	94.1	94.1	90.7	77.5	64.4	51.2	87.2	8.6	87.2	87.2	87.5	74.5	61.4	48.4
	57	96.0	7.6	96.0	96.0	89.4	76.3	63.1	50.0	89.0	8.6	89.0	89.0	83.8	70.8	57.7	44.7
3400	77	129.9	7.8	77.5	58.2	43.5	-	-	-	119.9	8.7	77.6	53.6	39.0	-	-	-
	72	117.9	7.8	91.7	77.0	62.3	47.5	-	-	108.8	8.7	87.6	73.0	58.4	43.8	-	-
	67	105.9	7.8	105.9	95.7	81.0	66.3	51.6	-	97.6	8.7	97.6	92.3	77.8	63.2	48.6	-
	62	96.6	7.7	96.6	96.6	98.2	83.5	68.7	54.0	89.2	8.7	89.2	89.2	94.8	80.2	65.6	51.0
	57	98.6	7.7	98.6	98.6	96.8	82.1	67.4	52.7	91.0	8.7	91.0	91.0	90.8	76.2	61.6	47.0
3825	72	120.3	7.8	99.5	83.3	67.1	50.9	-	-	110.9	8.7	95.1	79.0	63.0	46.9	-	-
	67	108.0	7.8	108.0	102.9	87.3	71.1	55.0	-	99.5	8.7	99.5	96.9	83.9	67.8	51.8	-
	62	98.6	7.7	98.6	98.6	99.3	83.2	67.0	50.8	91.0	8.6	91.0	91.0	93.8	77.8	61.7	45.7
	57	100.6	7.7	100.6	100.6	99.7	83.5	67.3	51.1	92.8	8.7	92.8	92.8	92.7	76.7	60.6	44.6
4250	72	122.6	7.8	107.2	89.6	71.9	54.3	-	-	113.1	8.7	102.6	85.1	67.6	50.1	-	-
	67	110.1	7.8	110.1	110.1	93.6	76.0	58.3	-	101.5	8.7	101.5	101.5	90.0	72.5	55.0	-
	62	100.5	7.7	100.5	100.5	100.5	82.9	65.2	47.6	92.8	8.6	92.8	92.8	92.8	75.3	57.8	40.3
	57	102.5	7.7	102.5	102.5	102.5	84.9	67.3	49.6	94.6	8.7	94.6	94.6	94.6	77.1	59.6	42.2

ZH102 (8.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
2125	77	104.5	9.5	39.0	36.3	26.4	-	-	-	96.8	10.6	38.2	30.3	22.9	-	-	-
	72	94.6	9.5	61.5	51.6	41.7	31.8	-	-	87.5	10.6	58.2	48.4	38.6	28.8	-	-
	67	84.7	9.5	83.9	66.9	57.0	47.2	37.3	-	78.2	10.6	78.2	64.2	54.4	44.6	34.8	-
	62	77.6	9.5	77.6	77.6	70.0	60.2	50.3	40.4	71.8	10.6	71.8	71.8	71.8	57.5	47.7	37.9
2550	77	106.3	9.5	51.9	40.5	29.1	-	-	-	97.9	10.5	51.4	36.5	25.2	-	-	-
	72	96.3	9.5	68.8	57.4	46.0	34.6	-	-	88.5	10.6	65.2	53.9	42.6	31.3	-	-
	67	86.2	9.6	85.7	74.3	62.9	51.4	40.0	-	79.1	10.6	79.1	71.3	60.0	48.7	37.3	-
	62	78.9	9.5	78.9	78.9	77.2	65.8	54.4	43.0	72.6	10.6	72.6	72.6	72.6	62.9	51.6	40.3
	57	80.5	9.5	80.5	80.5	71.6	60.2	48.8	37.4	74.0	10.6	74.0	74.0	66.4	55.0	43.7	32.4
2975	77	108.2	9.6	64.8	44.7	31.8	-	-	-	99.0	10.5	64.5	42.8	27.6	-	-	-
	72	97.9	9.6	76.1	63.2	50.2	37.3	-	-	89.5	10.6	72.3	59.4	46.6	33.8	-	-
	67	87.7	9.6	87.4	81.6	68.7	55.7	42.8	-	80.0	10.6	80.0	78.4	65.6	52.8	39.9	-
	62	80.3	9.6	80.3	80.3	84.3	71.4	58.5	45.5	73.4	10.6	73.4	73.4	73.4	68.3	55.5	42.7
	57	81.9	9.6	81.9	81.9	78.2	65.3	52.3	39.4	74.9	10.6	74.9	74.9	72.6	59.8	46.9	34.1
3400	77	110.0	9.6	77.6	48.9	34.5	-	-	-	100.0	10.5	77.7	49.0	30.0	-	-	-
	72	99.6	9.6	83.4	68.9	54.5	40.0	-	-	90.4	10.5	79.3	64.9	50.6	36.3	-	-
	67	89.2	9.7	89.2	89.0	74.5	60.0	45.5	-	80.8	10.6	80.8	80.8	71.2	56.9	42.5	-
	62	81.7	9.6	81.7	81.7	91.5	77.0	62.5	48.1	74.2	10.6	74.2	74.2	74.2	73.8	59.4	45.1
	57	83.3	9.6	83.3	83.3	84.8	70.3	55.9	41.4	75.7	10.5	75.7	75.7	75.7	64.5	50.1	35.8
3825	72	101.6	9.6	90.7	74.8	58.9	43.0	-	-	92.3	10.5	86.3	70.5	54.7	39.0	-	-
	67	91.0	9.6	91.0	90.9	80.5	64.6	48.7	-	82.5	10.6	82.5	82.5	77.0	61.3	45.5	-
	62	83.3	9.6	83.3	83.3	88.2	72.3	56.4	40.5	75.7	10.5	75.7	75.7	75.7	66.9	51.2	35.4
	57	85.0	9.6	85.0	85.0	85.8	69.9	54.0	38.1	77.2	10.5	77.2	77.2	77.2	63.0	47.3	31.5
4250	72	103.7	9.6	97.9	80.6	63.2	45.9	-	-	94.2	10.5	93.3	76.1	58.9	41.7	-	-
	67	92.9	9.6	92.9	92.9	86.4	69.1	51.8	-	84.2	10.6	84.2	84.2	82.9	65.7	48.5	-
	62	85.0	9.6	85.0	85.0	85.0	67.7	50.3	33.0	77.3	10.5	77.3	77.3	77.3	60.1	42.9	25.7
	57	86.7	9.6	86.7	86.7	86.7	69.4	52.0	34.7	78.8	10.5	78.8	78.8	78.8	61.6	44.4	27.2

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZH120 (10 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
2500	77	156.1	7.6	68.9	57.2	46.2	-	-	-	147.4	8.5	64.0	52.8	41.6	-	-	-
	72	144.0	7.5	85.7	74.7	63.7	52.6	-	-	136.1	8.3	82.0	70.8	59.6	48.4	-	-
	67	131.9	7.4	102.5	92.2	81.1	70.1	59.1	-	124.7	8.2	100.0	88.8	77.6	66.4	55.2	-
	62	117.8	7.4	117.8	118.1	100.3	89.2	78.2	67.2	113.3	8.2	113.3	112.8	94.7	83.5	72.2	61.0
3000	77	160.9	7.6	75.6	62.9	50.2	-	-	-	151.8	8.5	71.2	58.3	45.5	-	-	-
	72	148.4	7.5	94.6	81.9	69.2	56.5	-	-	140.1	8.4	90.9	78.0	65.1	52.2	-	-
	67	136.0	7.4	113.6	100.9	88.2	75.5	62.8	-	128.5	8.3	110.6	97.7	84.8	71.9	59.0	-
	62	121.5	7.4	121.5	121.7	109.0	96.3	83.6	70.9	116.7	8.3	116.7	116.4	103.5	90.6	77.7	64.8
	57	117.2	7.3	117.2	117.2	114.2	101.5	88.8	76.1	113.2	8.3	113.2	113.2	107.1	94.3	81.4	68.5
3500	77	165.7	7.6	82.3	68.6	54.3	-	-	-	156.2	8.6	78.5	63.9	49.3	-	-	-
	72	152.9	7.5	103.4	89.1	74.7	60.4	-	-	144.2	8.4	99.8	85.2	70.7	56.1	-	-
	67	140.0	7.4	124.6	109.6	95.2	80.9	66.5	-	132.2	8.3	121.1	106.6	92.0	77.5	62.9	-
	62	125.1	7.5	125.1	125.2	117.7	103.3	89.0	74.6	120.1	8.3	120.1	119.9	112.3	97.7	83.2	68.6
	57	120.7	7.3	120.7	120.7	123.4	109.0	94.7	80.3	116.5	8.3	116.5	116.5	116.3	101.7	87.1	72.6
4000	77	170.5	7.6	88.9	74.3	58.3	-	-	-	160.6	8.6	85.7	69.4	53.2	-	-	-
	72	157.3	7.5	112.3	96.3	80.3	64.3	-	-	148.3	8.5	108.7	92.5	76.2	60.0	-	-
	67	144.1	7.4	135.7	118.3	102.3	86.2	70.2	-	135.9	8.3	131.7	115.5	99.2	83.0	66.8	-
	62	128.7	7.5	128.7	128.7	126.4	110.4	94.4	78.4	123.4	8.3	123.4	123.4	121.1	104.9	88.6	72.4
	57	124.3	7.3	124.3	124.3	132.5	116.5	100.5	84.5	119.8	8.3	119.8	119.8	125.4	109.1	92.9	76.7
4500	72	161.7	7.5	120.9	103.3	85.7	68.1	-	-	152.1	8.5	117.1	99.3	81.5	63.7	-	-
	67	148.1	7.4	143.9	126.8	109.2	91.6	74.0	-	139.4	8.3	137.3	123.9	106.1	88.4	70.6	-
	62	132.3	7.5	132.3	132.3	131.2	113.6	96.0	78.4	126.6	8.4	126.6	126.6	125.4	107.6	89.9	72.1
	57	127.8	7.3	127.8	127.8	131.9	114.3	96.7	79.1	122.8	8.4	122.8	122.8	125.6	107.9	90.1	72.3
5000	72	166.1	7.5	129.6	110.4	91.2	72.0	-	-	155.9	8.5	125.4	106.1	86.8	67.5	-	-
	67	152.2	7.4	152.2	135.3	116.1	96.9	77.7	-	142.9	8.4	142.9	132.3	113.0	93.7	74.4	-
	62	136.0	7.5	136.0	136.0	136.0	116.8	97.6	78.4	129.8	8.4	129.8	129.8	129.8	110.4	91.1	71.8
	57	131.3	7.3	131.3	131.3	131.3	112.1	92.9	73.7	125.9	8.4	125.9	125.9	125.9	106.6	87.3	68.0
		95°F								**105°F**							
2500	77	138.8	9.4	59.1	48.4	37.0	-	-	-	133.4	10.5	53.7	46.1	34.9	-	-	-
	72	128.2	9.2	78.3	66.9	55.5	44.1	-	-	122.8	10.4	76.1	64.9	53.6	42.4	-	-
	67	117.6	9.1	97.5	85.4	74.0	62.6	51.2	-	112.2	10.3	98.5	83.6	72.4	61.1	49.9	-
	62	108.7	9.0	108.7	107.5	89.1	77.7	66.3	54.9	104.1	10.3	104.1	103.5	86.7	75.4	64.2	53.0
3000	77	142.8	9.4	66.9	53.8	40.7	-	-	-	135.8	10.6	64.1	51.1	38.1	-	-	-
	72	131.9	9.3	87.2	74.1	61.1	48.0	-	-	125.0	10.5	84.6	71.6	58.6	45.6	-	-
	67	121.0	9.1	107.6	94.5	81.4	68.3	55.3	-	114.1	10.3	105.0	92.0	79.0	66.0	53.0	-
	62	111.9	9.1	111.9	111.1	98.0	84.9	71.8	58.7	106.0	10.3	106.0	105.6	94.6	81.7	68.7	55.7
	57	109.1	9.2	109.1	109.1	100.1	87.0	73.9	60.8	103.9	10.4	103.9	103.9	94.2	81.2	68.2	55.2
3500	77	146.8	9.5	74.6	59.2	44.4	-	-	-	138.1	10.6	74.5	56.1	41.3	-	-	-
	72	135.6	9.3	96.2	81.4	66.6	51.8	-	-	127.1	10.5	93.0	78.3	63.5	48.7	-	-
	67	124.4	9.2	117.7	103.6	88.8	74.0	59.3	-	116.1	10.4	111.6	100.4	85.7	70.9	56.2	-
	62	115.0	9.1	115.0	114.6	106.9	92.1	77.3	62.5	107.8	10.4	107.8	107.6	102.6	87.9	73.1	58.4
	57	112.2	9.3	112.2	112.2	109.2	94.4	79.6	64.8	105.7	10.4	105.7	105.7	102.1	87.4	72.6	57.8
4000	77	150.8	9.6	82.4	64.6	48.1	-	-	-	140.4	10.7	84.9	61.1	44.6	-	-	-
	72	139.3	9.4	105.1	88.6	72.1	55.7	-	-	129.3	10.5	101.5	85.0	68.5	51.9	-	-
	67	127.8	9.2	127.8	112.7	96.2	79.7	63.3	-	118.1	10.4	118.1	108.9	92.3	75.8	59.3	-
	62	118.2	9.2	118.2	118.2	115.8	99.3	82.8	66.4	109.6	10.4	109.6	109.6	110.6	94.1	77.6	61.0
	57	115.3	9.3	115.3	115.3	118.3	101.8	85.3	68.8	107.5	10.5	107.5	107.5	110.1	93.5	77.0	60.5
4500	72	142.5	9.4	113.2	95.2	77.3	59.3	-	-	132.1	10.6	109.5	91.5	73.5	55.5	-	-
	67	130.7	9.3	130.7	121.0	103.1	85.1	67.2	-	120.7	10.4	120.7	115.1	99.1	81.1	63.1	-
	62	120.8	9.2	120.8	120.8	119.7	101.7	83.8	65.8	112.1	10.4	112.1	112.1	112.6	94.6	76.5	58.5
	57	117.9	9.4	117.9	117.9	119.4	101.4	83.5	65.5	109.9	10.5	109.9	109.9	111.2	93.2	75.2	57.2
5000	72	145.6	9.5	121.3	101.9	82.4	63.0	-	-	135.0	10.6	117.5	98.0	78.5	59.0	-	-
	67	133.6	9.3	133.6	129.4	109.9	90.5	71.1	-	123.4	10.4	123.4	121.3	105.9	86.4	66.9	-
	62	123.5	9.3	123.5	123.5	123.5	104.1	84.7	65.3	114.5	10.4	114.5	114.5	114.5	95.0	75.5	56.0
	57	120.5	9.4	120.5	120.5	120.5	101.1	81.7	62.3	112.3	10.5	112.3	112.3	112.3	92.8	73.3	53.8

ZH120 (10 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
2500	77	128.1	11.7	48.4	43.9	32.8	-	-	-	122.7	12.9	43.0	40.4	30.7	-	-	-
	72	117.4	11.6	73.9	62.8	51.7	40.7	-	-	112.1	12.8	71.7	60.8	49.9	38.9	-	-
	67	106.8	11.5	99.5	81.8	70.7	59.6	48.5	-	101.4	12.7	100.5	80.0	69.1	58.1	47.2	-
	62	99.5	11.6	99.5	99.5	84.3	73.2	62.1	51.0	94.9	12.8	94.9	94.9	82.6	70.9	60.0	49.0
3000	77	128.7	11.7	61.4	48.4	35.5	-	-	-	121.7	12.9	58.6	45.8	33.0	-	-	-
	72	118.0	11.6	81.9	69.0	56.1	43.2	-	-	111.1	12.8	79.2	66.4	53.6	40.8	-	-
	67	107.3	11.5	102.5	89.5	76.6	63.7	50.8	-	100.5	12.7	99.9	87.1	74.2	61.4	48.6	-
	62	100.1	11.6	100.1	100.1	91.3	78.4	65.5	52.6	94.1	12.8	94.1	94.1	88.0	75.2	62.3	49.5
	57	98.8	11.6	98.8	98.8	88.2	75.3	62.4	49.5	93.6	12.8	93.6	93.6	82.3	69.5	56.7	43.8
3500	77	129.4	11.7	74.3	53.0	38.3	-	-	-	120.7	12.9	74.2	51.2	35.2	-	-	-
	72	118.6	11.6	89.9	75.2	60.4	45.7	-	-	110.2	12.8	86.8	72.0	57.3	42.6	-	-
	67	107.9	11.5	105.4	97.3	82.6	67.8	53.1	-	99.6	12.7	99.3	94.1	79.4	64.7	50.0	-
	62	100.6	11.6	100.6	100.6	98.4	83.6	68.9	54.2	93.3	12.8	93.3	93.3	93.3	79.4	64.7	50.0
	57	99.3	11.6	99.3	99.3	95.0	80.3	65.6	50.8	92.8	12.8	92.8	92.8	88.0	73.3	58.5	43.8
4000	77	130.1	11.8	87.3	57.6	41.0	-	-	-	119.7	12.9	89.8	56.6	37.5	-	-	-
	72	119.3	11.7	97.9	81.3	64.8	48.2	-	-	109.2	12.8	94.3	77.7	61.1	44.4	-	-
	67	108.4	11.6	108.4	105.0	88.5	71.9	55.3	-	98.8	12.7	98.8	98.8	84.6	68.0	51.4	-
	62	101.1	11.6	101.1	101.1	105.4	88.9	72.3	55.7	92.6	12.8	92.6	92.6	92.6	83.6	67.0	50.4
	57	99.8	11.6	99.8	99.8	101.9	85.3	68.7	52.2	92.0	12.8	92.0	92.0	92.0	77.1	60.4	43.8
4500	72	121.8	11.7	105.8	87.7	69.6	51.6	-	-	111.5	12.8	102.0	83.9	65.8	47.7	-	-
	67	110.8	11.6	110.8	109.1	95.2	77.1	59.0	-	100.8	12.7	100.8	100.8	91.2	73.1	55.0	-
	62	103.3	11.6	103.3	103.3	105.5	87.4	69.3	51.3	94.5	12.8	94.5	94.5	94.5	80.2	62.1	44.0
	57	101.9	11.6	101.9	101.9	103.0	84.9	66.9	48.8	94.0	12.8	94.0	94.0	94.0	76.7	58.6	40.4
5000	72	124.4	11.7	113.6	94.1	74.5	55.0	-	-	113.8	12.8	109.8	90.2	70.6	50.9	-	-
	67	113.1	11.6	113.1	113.1	101.8	82.3	62.7	-	102.9	12.7	102.9	102.9	97.8	78.1	58.5	-
	62	105.5	11.6	105.5	105.5	105.5	85.9	66.4	46.8	96.4	12.8	96.4	96.4	96.4	76.8	57.2	37.6
	57	104.1	11.6	104.1	104.1	104.1	84.6	65.0	45.4	95.9	12.8	95.9	95.9	95.9	76.3	56.7	37.0

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZH150 (12.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
3125	77	187.0	9.5	73.2	60.2	47.2	-	-	-	182.7	10.6	74.6	61.2	47.8	-	-	-
	72	176.3	9.5	98.5	85.5	72.4	59.4	-	-	169.9	10.5	98.6	85.2	71.9	58.5	-	-
	67	165.5	9.4	123.7	110.7	97.7	84.7	71.7	-	157.2	10.4	122.7	109.3	95.9	82.5	69.1	-
	62	149.3	9.2	149.3	143.1	119.8	106.8	93.8	80.8	142.6	10.2	142.6	139.6	118.5	105.1	91.7	78.3
3750	77	193.7	9.6	82.5	67.3	52.2	-	-	-	188.6	10.7	83.1	67.8	52.4	-	-	-
	72	182.5	9.6	110.4	95.2	80.1	64.9	-	-	175.5	10.6	109.5	94.1	78.8	63.5	-	-
	67	171.4	9.5	138.3	123.1	108.0	92.8	77.7	-	162.3	10.5	135.8	120.5	105.2	89.9	74.5	-
	62	154.5	9.3	154.5	150.5	132.4	117.3	102.1	87.0	147.3	10.3	147.3	145.3	129.9	114.6	99.3	84.0
	57	155.4	9.2	155.4	155.4	138.2	123.1	107.9	92.8	148.3	10.3	148.3	148.3	133.2	117.9	102.5	87.2
4375	77	200.3	9.7	91.7	74.4	57.2	-	-	-	194.6	10.8	91.6	74.3	57.1	-	-	-
	72	188.8	9.7	122.3	105.0	87.7	70.4	-	-	181.0	10.7	120.3	103.0	85.8	68.5	-	-
	67	177.2	9.6	152.8	135.5	118.2	101.0	83.7	-	167.5	10.6	149.0	131.7	114.5	97.2	80.0	-
	62	159.8	9.3	159.8	157.8	145.0	127.7	110.5	93.2	152.0	10.4	152.0	151.0	141.4	124.2	106.9	89.6
	57	160.7	9.3	160.7	160.7	151.3	134.0	116.8	99.5	152.9	10.4	152.9	152.9	144.9	127.7	110.4	93.2
5000	77	207.0	9.8	101.0	81.6	62.2	-	-	-	200.6	10.9	100.1	80.9	61.7	-	-	-
	72	195.1	9.8	134.2	114.7	95.3	75.9	-	-	186.6	10.8	131.1	111.9	92.7	73.5	-	-
	67	183.1	9.7	167.3	147.9	128.5	109.1	89.7	-	172.6	10.7	162.2	143.0	123.8	104.6	85.4	-
	62	165.1	9.4	165.1	165.1	157.6	138.2	118.8	99.4	156.6	10.5	156.6	156.6	152.9	133.7	114.5	95.3
	57	166.0	9.4	166.0	166.0	164.4	145.0	125.6	106.2	157.6	10.5	157.6	157.6	156.7	137.5	118.3	99.1
5625	72	203.6	9.7	143.3	122.5	101.8	81.1	-	-	193.3	10.8	140.6	120.0	99.4	78.7	-	-
	67	191.1	9.6	183.2	158.0	137.2	116.5	95.8	-	178.9	10.7	173.6	153.2	132.6	112.0	91.3	-
	62	172.4	9.4	172.4	172.4	168.6	147.9	127.1	106.4	162.3	10.5	162.3	162.3	160.4	139.8	119.2	98.5
	57	173.3	9.3	173.3	173.3	172.5	151.8	131.0	110.3	163.3	10.4	163.3	163.3	162.9	142.2	121.6	101.0
6250	72	212.2	9.7	152.4	130.3	108.2	86.2	-	-	200.1	10.8	150.1	128.0	106.0	83.9	-	-
	67	199.1	9.6	199.1	168.0	145.9	123.9	101.8	-	185.1	10.7	185.1	163.5	141.4	119.3	97.3	-
	62	179.6	9.4	179.6	179.6	179.6	157.5	135.5	113.4	168.0	10.4	168.0	168.0	168.0	145.9	123.8	101.8
	57	180.6	9.3	180.6	180.6	180.6	158.5	136.5	114.4	169.0	10.4	169.0	169.0	169.0	147.0	124.9	102.8
		95°F								**105°F**							
3125	77	178.3	11.7	76.0	62.2	48.4	-	-	-	167.8	13.1	69.9	58.4	44.7	-	-	-
	72	163.6	11.6	98.8	85.0	71.3	57.5	-	-	153.7	13.0	94.5	80.9	67.2	53.6	-	-
	67	148.9	11.5	121.6	107.9	94.1	80.3	66.6	-	139.7	12.8	119.1	103.4	89.7	76.1	62.4	-
	62	136.0	11.2	136.0	136.0	117.1	103.4	89.6	75.8	128.6	12.6	128.6	128.6	108.9	95.2	81.5	67.9
3750	77	183.6	11.8	83.7	68.2	52.7	-	-	-	172.5	13.2	79.8	64.4	48.9	-	-	-
	72	168.4	11.7	108.6	93.1	77.6	62.1	-	-	158.0	13.0	104.4	89.0	73.5	58.1	-	-
	67	153.3	11.6	133.4	117.9	102.4	86.9	71.4	-	143.6	12.9	129.0	113.6	98.1	82.7	67.2	-
	62	140.1	11.3	140.1	140.1	127.5	112.0	96.5	81.0	132.2	12.7	132.2	132.2	119.0	103.6	88.1	72.7
	57	141.1	11.3	141.1	141.1	128.2	112.7	97.2	81.6	132.5	12.7	132.5	132.5	119.2	103.7	88.3	72.8
4375	77	188.9	12.0	91.5	74.2	57.0	-	-	-	177.2	13.3	89.7	70.4	53.1	-	-	-
	72	173.3	11.8	118.3	101.1	83.9	66.6	-	-	162.3	13.1	114.3	97.1	79.8	62.5	-	-
	67	157.7	11.7	145.2	128.0	110.7	93.5	76.2	-	147.5	13.0	138.9	123.8	106.5	89.3	72.0	-
	62	144.1	11.4	144.1	144.1	137.8	120.6	103.3	86.1	135.8	12.8	135.8	135.8	129.2	112.0	94.7	77.4
	57	145.2	11.4	145.2	145.2	138.6	121.3	104.1	86.8	136.1	12.8	136.1	136.1	129.4	112.1	94.8	77.6
5000	77	194.1	12.1	99.2	80.3	61.3	-	-	-	181.9	13.3	99.7	76.3	57.3	-	-	-
	72	178.1	11.9	128.1	109.1	90.1	71.2	-	-	166.6	13.2	124.2	105.2	86.1	67.0	-	-
	67	162.1	11.8	157.0	138.0	119.0	100.0	81.0	-	151.4	13.1	148.8	134.0	114.9	95.9	76.8	-
	62	148.1	11.5	148.1	148.1	148.1	129.2	110.2	91.2	139.4	12.9	139.4	139.4	139.4	120.3	101.3	82.2
	57	149.2	11.5	149.2	149.2	148.9	130.0	111.0	92.0	139.7	12.9	139.7	139.7	139.6	120.5	101.4	82.4
5625	72	183.1	11.9	138.0	117.4	96.9	76.4	-	-	170.9	13.2	133.8	113.2	92.7	72.1	-	-
	67	166.6	11.8	164.0	148.5	128.0	107.4	86.9	-	155.3	13.1	154.0	143.5	123.7	103.1	82.5	-
	62	152.2	11.5	152.2	152.2	152.2	131.7	111.2	90.7	143.0	12.9	143.0	143.0	143.0	122.4	101.8	81.2
	57	153.4	11.5	153.4	153.4	153.2	132.7	112.2	91.6	143.3	12.9	143.3	143.3	143.2	122.6	102.0	81.5
6250	72	188.0	11.9	147.8	125.7	103.7	81.6	-	-	175.1	13.2	143.4	121.3	99.2	77.1	-	-
	67	171.1	11.8	171.1	159.0	136.9	114.8	92.8	-	159.1	13.1	159.1	153.1	132.5	110.4	88.3	-
	62	156.3	11.5	156.3	156.3	156.3	134.3	112.2	90.1	146.5	12.9	146.5	146.5	146.5	124.4	102.3	80.3
	57	157.5	11.5	157.5	157.5	157.5	135.4	113.4	91.3	146.8	12.9	146.8	146.8	146.8	124.7	102.7	80.6

ZH150 (12.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
3125	77	157.3	14.5	63.8	54.6	41.0	-	-	-	146.7	15.8	56.5	50.7	37.3	-	-	-
	72	143.8	14.3	90.2	76.7	63.2	49.6	-	-	134.0	15.7	85.9	72.5	59.1	45.7	-	-
	67	130.4	14.1	116.6	98.8	85.3	71.8	58.2	-	121.2	15.5	114.1	94.3	80.9	67.5	54.1	-
	62	121.2	14.0	121.2	121.2	100.6	87.0	73.5	60.0	113.7	15.4	113.7	113.7	92.3	78.9	65.4	52.0
3750	77	161.4	14.5	75.9	60.5	45.1	-	-	-	150.3	15.9	72.0	56.7	41.3	-	-	-
	72	147.6	14.4	100.3	84.9	69.5	54.1	-	-	137.2	15.7	96.1	80.8	65.4	50.0	-	-
	67	133.8	14.2	124.6	109.2	93.8	78.4	63.0	-	124.1	15.5	120.2	104.9	89.5	74.2	58.8	-
	62	124.3	14.1	124.3	124.3	110.6	95.2	79.8	64.4	116.5	15.4	116.5	116.5	102.2	86.8	71.4	56.1
	57	123.8	14.1	123.8	123.8	110.2	94.8	79.4	63.9	115.2	15.5	115.2	115.2	101.2	85.8	70.5	55.1
4375	77	165.5	14.6	88.0	66.5	49.2	-	-	-	153.8	15.9	87.5	62.6	45.3	-	-	-
	72	151.4	14.4	110.3	93.0	75.8	58.5	-	-	140.4	15.7	106.3	89.0	71.7	54.4	-	-
	67	137.2	14.3	132.6	119.6	102.3	85.0	67.8	-	127.0	15.5	126.4	115.4	98.1	80.8	63.5	-
	62	127.5	14.1	127.5	127.5	120.6	103.4	86.1	68.8	119.2	15.5	119.2	119.2	112.1	94.8	77.5	60.2
	57	127.0	14.2	127.0	127.0	120.2	102.9	85.6	68.3	117.9	15.5	117.9	117.9	111.0	93.7	76.4	59.1
5000	77	169.6	14.6	100.1	72.4	53.3	-	-	-	157.3	15.9	103.1	68.5	49.3	-	-	-
	72	155.1	14.5	120.4	101.2	82.1	62.9	-	-	143.6	15.7	116.5	97.3	78.0	58.8	-	-
	67	140.7	14.3	140.7	130.0	110.8	91.7	72.5	-	129.9	15.6	129.9	126.0	106.7	87.5	68.3	-
	62	130.7	14.2	130.7	130.7	130.7	111.5	92.4	73.2	121.9	15.5	121.9	121.9	121.9	102.7	83.5	64.2
	57	130.2	14.2	130.2	130.2	130.2	111.0	91.9	72.7	120.6	15.6	120.6	120.6	120.6	101.5	82.3	63.1
5625	72	158.7	14.5	129.7	109.1	88.4	67.8	-	-	146.5	15.8	125.5	104.9	84.2	63.5	-	-
	67	143.9	14.3	143.9	138.6	119.4	98.8	78.2	-	132.5	15.6	132.5	132.5	115.2	94.5	73.8	-
	62	133.7	14.2	133.7	133.7	133.7	113.1	92.4	71.8	124.4	15.6	124.4	124.4	124.4	103.7	83.1	62.4
	57	133.2	14.3	133.2	133.2	133.2	112.5	91.9	71.3	123.1	15.6	123.1	123.1	123.1	102.5	81.8	61.1
6250	72	162.3	14.5	139.0	116.9	94.8	72.7	-	-	149.4	15.8	134.6	112.5	90.3	68.2	-	-
	67	147.2	14.4	147.2	147.2	128.0	105.9	83.8	-	135.2	15.7	135.2	135.2	123.6	101.5	79.3	-
	62	136.7	14.2	136.7	136.7	136.7	114.6	92.5	70.4	126.9	15.6	126.9	126.9	126.9	104.8	82.6	60.5
	57	136.2	14.3	136.2	136.2	136.2	114.1	92.0	69.8	125.5	15.7	125.5	125.5	125.5	103.4	81.2	59.1

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR078-150 Cooling and Reheat Capacities

ZR078 (6.5 Ton) Cooling

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
1625	77	99.9	5.1	39.3	33.2	27.1	-	-	-	90.5	5.8	36.9	30.8	24.7	-	-	-
	72	91.5	5.0	50.3	44.2	38.1	32.1	-	-	83.7	5.7	48.0	41.8	35.7	29.6	-	-
	67	83.0	5.0	61.3	55.2	49.2	43.1	37.0	-	76.9	5.7	59.0	52.9	46.8	40.7	34.5	-
	62	72.4	4.9	72.4	70.1	60.9	54.9	48.8	42.7	68.7	5.7	68.7	66.7	57.6	51.5	45.4	39.3
1950	77	106.5	5.1	45.5	37.9	30.3	-	-	-	96.8	5.9	42.8	35.2	27.7	-	-	-
	72	97.5	5.1	57.8	50.2	42.6	35.1	-	-	89.5	5.8	55.1	47.6	40.0	32.5	-	-
	67	88.5	5.1	70.1	62.5	54.9	47.4	39.8	-	82.2	5.8	67.5	60.0	52.4	44.9	37.3	-
	62	77.2	5.0	77.2	75.6	68.1	60.5	52.9	45.4	73.4	5.7	73.4	72.1	64.6	57.0	49.5	41.9
	57	78.2	5.0	78.2	78.2	72.6	65.0	57.5	49.9	70.6	5.7	70.6	70.6	65.6	58.0	50.5	43.0
2275	77	113.1	5.2	51.6	42.6	33.5	-	-	-	103.0	5.9	48.6	39.6	30.7	-	-	-
	72	103.5	5.2	65.2	56.2	47.1	38.0	-	-	95.2	5.9	62.3	53.3	44.4	35.4	-	-
	67	93.9	5.1	78.8	69.8	60.7	51.6	42.6	-	87.5	5.8	76.0	67.0	58.1	49.1	40.1	-
	62	81.9	5.1	81.9	81.2	75.2	66.2	57.1	48.0	78.1	5.8	78.1	77.5	71.5	62.6	53.6	44.6
	57	83.1	5.1	83.1	83.1	80.3	71.2	62.1	53.1	75.2	5.8	75.2	75.2	72.7	63.7	54.7	45.8
2600	77	119.7	5.3	57.8	47.3	36.7	-	-	-	109.3	6.0	54.4	44.0	33.6	-	-	-
	72	109.5	5.2	72.7	62.2	51.6	41.0	-	-	101.0	6.0	69.5	59.1	48.7	38.3	-	-
	67	99.4	5.2	87.6	77.0	66.5	55.9	45.3	-	92.8	5.9	84.5	74.1	63.7	53.3	42.9	-
	62	86.7	5.1	86.7	86.7	82.4	71.8	61.3	50.7	82.9	5.9	82.9	82.9	78.5	68.1	57.7	47.3
	57	87.9	5.2	87.9	87.9	87.9	77.4	66.8	56.2	79.7	5.9	79.7	79.7	79.7	69.3	59.0	48.6
2925	72	109.6	5.2	74.8	64.0	53.1	42.2	-	-	100.2	5.9	71.6	60.8	50.0	39.3	-	-
	67	99.5	5.1	91.9	79.3	68.4	57.5	46.7	-	92.0	5.9	87.0	76.3	65.5	54.7	44.0	-
	62	86.8	5.1	86.8	86.8	84.6	73.8	62.9	52.0	82.2	5.8	82.2	82.2	80.0	69.3	58.5	47.7
	57	88.0	5.1	88.0	88.0	88.0	77.1	66.2	55.3	79.1	5.8	79.1	79.1	79.1	68.3	57.6	46.8
3250	72	109.7	5.1	76.9	65.7	54.6	43.4	-	-	99.4	5.8	73.7	62.5	51.4	40.3	-	-
	67	99.6	5.1	96.1	81.5	70.3	59.1	48.0	-	91.3	5.8	89.5	78.4	67.3	56.1	45.0	-
	62	86.9	5.0	86.9	86.9	86.9	75.7	64.5	53.4	81.5	5.8	81.5	81.5	81.5	70.4	59.3	48.1
	57	88.0	5.0	88.0	88.0	88.0	76.8	65.6	54.4	78.5	5.8	78.5	78.5	78.5	67.3	56.2	45.1
		95°F								**105°F**							
1625	77	81.2	6.5	34.6	28.4	22.3	-	-	-	76.9	7.3	31.0	26.2	20.1	-	-	-
	72	75.9	6.5	45.6	39.5	33.3	27.2	-	-	70.8	7.3	43.2	37.1	31.0	24.8	-	-
	67	70.7	6.4	56.7	50.5	44.4	38.2	32.1	-	64.7	7.2	55.3	47.9	41.8	35.7	29.6	-
	62	64.9	6.4	64.9	63.3	54.3	48.1	42.0	35.8	59.4	7.2	59.4	58.5	49.9	43.8	37.7	31.6
1950	77	87.0	6.6	40.1	32.5	25.0	-	-	-	81.8	7.4	37.4	30.0	22.6	-	-	-
	72	81.4	6.5	52.5	45.0	37.5	30.0	-	-	75.3	7.4	49.6	42.2	34.8	27.4	-	-
	67	75.8	6.5	64.9	57.4	49.9	42.4	34.9	-	68.8	7.3	61.8	54.4	47.0	39.6	32.1	-
	62	69.7	6.4	69.7	68.6	61.0	53.5	46.0	38.5	63.2	7.3	63.2	62.6	56.1	48.7	41.3	33.9
	57	63.0	6.5	63.0	63.0	58.6	51.1	43.5	36.0	61.6	7.3	61.6	61.4	55.5	48.1	40.6	33.2
2275	77	92.9	6.7	45.5	36.7	27.8	-	-	-	86.7	7.5	43.8	33.8	25.1	-	-	-
	72	87.0	6.6	59.3	50.5	41.6	32.8	-	-	79.8	7.5	56.0	47.3	38.6	29.9	-	-
	67	81.0	6.6	73.2	64.3	55.4	46.6	37.7	-	73.0	7.4	68.3	60.9	52.2	43.5	34.7	-
	62	74.4	6.5	74.4	73.8	67.8	59.0	50.1	41.2	67.0	7.3	67.0	66.7	62.3	53.6	44.9	36.2
	57	67.3	6.5	67.3	67.3	65.1	56.2	47.3	38.5	65.2	7.4	65.2	65.1	61.6	52.9	44.2	35.5
2600	77	98.8	6.7	51.0	40.8	30.6	-	-	-	91.6	7.6	50.2	37.6	27.6	-	-	-
	72	92.5	6.7	66.2	56.0	45.8	35.6	-	-	84.3	7.6	62.5	52.5	42.5	32.5	-	-
	67	86.1	6.6	81.4	71.2	61.0	50.8	40.5	-	77.1	7.5	74.7	67.3	57.3	47.3	37.3	-
	62	79.1	6.6	79.1	79.1	74.6	64.4	54.2	43.9	70.8	7.4	70.8	70.8	68.5	58.5	48.5	38.5
	57	71.5	6.6	71.5	71.5	71.5	61.3	51.1	40.9	68.9	7.4	68.9	68.9	67.7	57.7	47.7	37.7
2925	72	90.8	6.6	68.3	57.6	47.0	36.3	-	-	83.1	7.5	64.7	54.2	43.8	33.3	-	-
	67	84.5	6.6	82.2	73.2	62.6	51.9	41.3	-	75.9	7.4	74.8	69.1	59.1	48.7	38.2	-
	62	77.6	6.5	77.6	77.6	75.4	64.7	54.1	43.4	69.7	7.4	69.7	69.7	68.6	58.1	47.7	37.2
	57	70.2	6.6	70.2	70.2	70.2	59.6	48.9	38.3	67.9	7.4	67.9	67.9	67.3	56.8	46.4	35.9
3250	72	89.1	6.6	70.4	59.3	48.2	37.1	-	-	81.8	7.4	66.9	56.0	45.1	34.2	-	-
	67	83.0	6.5	83.0	75.3	64.2	53.1	42.0	-	74.8	7.4	74.8	70.9	60.9	50.0	39.1	-
	62	76.2	6.5	76.2	76.2	76.2	65.1	54.0	42.9	68.6	7.3	68.6	68.6	68.6	57.7	46.8	35.9
	57	68.9	6.5	68.9	68.9	68.9	57.8	46.8	35.7	66.9	7.3	66.9	66.9	66.9	56.0	45.1	34.2

ZR078 (6.5 Ton) Cooling (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
1625	77	72.6	8.1	27.5	24.0	18.0	-	-	-	68.3	9.0	24.0	21.5	15.8	-	-	-
	72	65.6	8.1	40.7	34.7	28.6	22.5	-	-	60.4	8.9	38.3	32.2	26.2	20.2	-	-
	67	58.6	8.1	54.0	45.3	39.2	33.1	27.1	-	52.6	8.9	52.6	42.6	36.6	30.6	24.6	-
	62	53.8	8.0	53.8	53.8	45.6	39.5	33.4	27.4	48.2	8.8	48.2	48.2	41.2	35.2	29.2	23.1
1950	77	76.5	8.2	34.8	27.5	20.2	-	-	-	71.2	9.1	33.0	25.0	17.8	-	-	-
	72	69.1	8.2	46.7	39.4	32.1	24.8	-	-	63.0	9.0	43.9	36.6	29.4	22.2	-	-
	67	61.8	8.2	58.7	51.4	44.0	36.7	29.4	-	54.7	9.0	54.7	48.3	41.1	33.9	26.7	-
	62	56.7	8.1	56.7	56.7	51.2	43.9	36.6	29.3	50.2	8.9	50.2	50.2	46.3	39.1	31.9	24.7
	57	60.1	8.1	60.1	59.7	52.4	45.1	37.7	30.4	58.7	8.9	58.7	58.0	49.3	42.1	34.8	27.6
2275	77	80.4	8.4	42.1	31.0	22.4	-	-	-	74.1	9.2	42.0	28.4	19.7	-	-	-
	72	72.7	8.3	52.7	44.2	35.6	27.1	-	-	65.5	9.2	49.4	41.0	32.6	24.2	-	-
	67	64.9	8.3	63.4	57.4	48.9	40.3	31.8	-	56.9	9.1	56.9	54.0	45.6	37.2	28.8	-
	62	59.6	8.2	59.6	59.6	56.8	48.3	39.7	31.2	52.2	9.0	52.2	52.2	51.4	43.0	34.6	26.2
	57	63.2	8.2	63.2	63.0	58.1	49.6	41.0	32.5	61.2	9.0	61.2	60.8	54.7	46.3	37.9	29.5
2600	77	84.3	8.5	49.4	34.4	24.6	-	-	-	77.1	9.3	51.0	31.8	21.6	-	-	-
	72	76.2	8.4	58.8	49.0	39.2	29.4	-	-	68.1	9.3	55.0	45.4	35.9	26.3	-	-
	67	68.1	8.4	68.1	63.5	53.7	43.9	34.1	-	59.1	9.2	59.1	59.1	50.1	40.5	30.9	-
	62	62.5	8.3	62.5	62.5	62.5	52.7	42.9	33.1	54.2	9.1	54.2	54.2	54.2	46.8	37.2	27.7
	57	66.3	8.3	66.3	66.3	63.9	54.1	44.3	34.5	63.6	9.1	63.6	63.6	60.0	50.5	40.9	31.3
2925	72	75.4	8.3	61.1	50.8	40.6	30.3	-	-	67.6	9.2	57.5	47.4	37.4	27.3	-	-
	67	67.3	8.3	67.3	65.0	55.7	45.4	35.1	-	58.7	9.2	58.7	58.7	52.2	42.1	32.1	-
	62	61.8	8.2	61.8	61.8	61.8	51.5	41.3	31.0	53.8	9.0	53.8	53.8	53.8	44.9	34.9	24.8
	57	65.5	8.2	65.5	65.5	64.3	54.1	43.8	33.6	63.2	9.0	63.2	63.2	61.4	51.3	41.3	31.2
3250	72	74.5	8.3	63.4	52.7	42.0	31.3	-	-	67.2	9.1	59.9	49.4	38.9	28.3	-	-
	67	66.6	8.2	66.6	66.6	57.6	46.9	36.2	-	58.4	9.1	58.4	58.4	54.3	43.7	33.2	-
	62	61.1	8.1	61.1	61.1	61.1	50.4	39.7	28.9	53.5	8.9	53.5	53.5	53.5	43.0	32.5	22.0
	57	64.8	8.1	64.8	64.8	64.8	54.1	43.4	32.7	62.7	9.0	62.7	62.7	62.7	52.2	41.7	31.2

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR078 (6.5 Ton) Reheat

Air on Evaporator Coil		Temperature of Air on Condenser Coil														
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F) 85	80	75	70	65	Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F) 85	80	75	70	65
		35°F							**45°F**						
1625	72	31.6	4.5	1.6	1.5	1.5	-	-	34.9	5.1	-0.5	-0.8	-1.0	-	-
	67	32.2	4.6	1.5	1.5	1.4	1.4	-	35.2	4.9	2.5	2.2	1.9	1.7	-
	62	28.5	4.4	1.6	1.6	1.5	1.5	1.4	32.0	4.9	5.2	4.9	4.6	4.4	4.1
1950	72	36.1	4.3	2.2	1.6	0.9	-	-	37.2	4.9	-1.2	-1.9	-2.6	-	-
	67	36.7	4.5	6.6	5.9	5.3	4.6	-	37.6	4.7	6.2	5.6	4.9	4.2	-
	62	32.6	4.3	10.8	10.1	9.4	8.8	8.1	34.2	4.7	13.0	12.4	11.7	11.1	10.4
	57	34.2	4.4	17.1	16.4	15.8	15.1	14.5	34.5	4.7	18.2	17.6	16.9	16.3	15.6
2275	72	40.5	4.2	2.9	1.7	0.4	-	-	39.6	4.7	-2.0	-3.0	-4.1	-	-
	67	41.2	4.3	11.6	10.4	9.1	7.8	-	39.9	4.5	9.9	8.9	7.9	6.8	-
	62	36.7	4.2	19.9	18.6	17.4	16.1	14.8	36.3	4.5	20.9	19.8	18.8	17.8	16.7
	57	38.3	4.2	29.8	29.5	28.2	26.9	25.7	36.6	4.5	28.5	28.2	27.2	26.1	25.1
2600	72	45.0	4.1	3.6	1.7	-0.1	-	-	41.9	4.5	-2.8	-4.2	-5.6	-	-
	67	45.7	4.2	16.7	14.8	12.9	11.1	-	42.3	4.3	13.7	12.3	10.8	9.4	-
	62	40.8	4.0	29.0	27.1	25.3	23.4	21.6	38.4	4.3	28.7	27.3	25.9	24.5	23.1
	57	42.5	4.1	42.5	42.5	40.6	38.7	36.9	38.8	4.4	38.8	38.8	37.4	36.0	34.5
2925	72	42.5	4.0	4.6	2.8	1.0	-	-	40.8	4.6	-3.2	-4.7	-6.2	-	-
	67	43.2	4.1	17.5	15.7	13.9	12.1	-	41.1	4.4	15.2	13.7	12.2	10.8	-
	62	38.5	4.0	31.6	29.1	27.3	25.5	23.7	37.4	4.4	32.0	30.5	29.1	27.6	26.1
	57	40.2	4.0	40.2	40.2	38.3	36.5	34.7	37.7	4.4	37.7	37.7	36.2	34.8	33.3
3250	72	40.0	3.9	5.7	3.9	2.1	-	-	39.6	4.6	-3.7	-5.2	-6.7	-	-
	67	40.6	4.0	18.4	16.6	14.8	13.0	-	40.0	4.4	16.7	15.2	13.6	12.1	-
	62	36.2	3.9	34.2	31.1	29.3	27.5	25.8	36.3	4.4	35.3	33.8	32.3	30.7	29.2
	57	37.9	4.0	37.9	37.9	36.1	34.3	32.5	36.7	4.5	36.7	36.7	35.1	33.6	32.0
		55°F							**65°F**						
1625	72	38.2	5.7	-2.5	-3.0	-3.5	-	-	36.3	5.7	-2.1	-2.4	-2.7	-	-
	67	38.2	5.1	3.4	2.9	2.4	1.9	-	36.2	5.3	2.4	2.1	1.8	1.5	-
	62	35.5	5.3	8.8	8.3	7.8	7.3	6.7	33.1	5.2	6.5	6.2	5.9	5.6	5.3
1950	72	38.4	5.5	-4.7	-5.4	-6.1	-	-	36.8	5.6	-4.7	-5.3	-5.8	-	-
	67	38.4	4.9	5.8	5.2	4.5	3.9	-	36.7	5.2	4.9	4.3	3.8	3.2	-
	62	35.7	5.1	15.3	14.7	14.0	13.3	12.7	33.5	5.0	13.9	13.3	12.7	12.2	11.6
	57	34.7	5.1	19.4	18.7	18.1	17.4	16.8	32.9	5.0	17.0	16.5	15.9	15.3	14.8
2275	72	38.6	5.2	-6.9	-7.7	-	-	-	37.3	5.4	-7.3	-8.1	-	-	-
	67	38.6	4.7	8.3	7.5	6.6	5.8	-	37.2	5.0	7.4	6.6	5.8	5.0	-
	62	35.9	4.9	21.9	21.0	20.2	19.4	18.6	34.0	4.9	21.2	20.4	19.6	18.8	18.0
	57	34.9	4.8	27.2	26.9	26.1	25.3	24.5	33.4	4.9	25.4	25.2	24.3	23.5	22.7
2600	72	38.8	5.0	-	-	-	-	-	37.8	5.3	-	-	-	-	-
	67	38.9	4.4	10.7	9.7	8.8	7.8	-	37.7	4.9	9.9	8.9	7.8	6.8	-
	62	36.1	4.6	28.4	27.4	26.5	25.5	24.6	34.4	4.8	28.5	27.5	26.4	25.3	24.3
	57	35.1	4.6	35.1	35.1	34.1	33.2	32.2	33.8	4.8	33.8	33.8	32.8	31.7	30.7
2925	72	39.0	5.2	-	-	-	-	-	38.0	5.4	-	-	-	-	-
	67	39.1	4.6	12.9	11.7	10.6	9.5	-	38.0	5.0	12.2	10.9	9.7	8.4	-
	62	36.3	4.8	32.4	32.0	30.8	29.7	28.6	34.6	4.9	31.7	31.2	29.9	28.7	27.4
	57	35.3	4.8	35.3	35.3	34.2	33.0	31.9	34.1	4.9	34.1	34.1	32.8	31.6	30.3
3250	72	39.2	5.3	-	-	-	-	-	38.2	5.5	-	-	-	-	-
	67	39.3	4.8	15.0	13.7	12.5	11.2	-	38.2	5.0	14.4	13.0	11.6	10.1	-
	62	36.5	5.0	36.5	36.5	35.2	33.9	32.6	34.8	4.9	34.8	34.8	33.4	32.0	30.5
	57	35.5	5.0	35.5	35.5	34.2	32.9	31.6	34.3	4.9	34.3	34.3	32.8	31.4	29.9

ZR078 (6.5 Ton) Reheat (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)				
CFM	WB (°F)			85	80	75	70	65			85	80	75	70	65
		75°F							**85°F**						
1625	72	34.3	5.7	-1.7	-1.8	-1.9	-	-	32.4	5.6	-1.3	-1.2	-1.1	-	-
	67	34.2	5.4	1.3	1.2	1.1	1.0	-	32.2	5.6	0.3	0.4	0.5	0.6	-
	62	30.6	5.0	4.3	4.2	4.1	4.0	3.9	28.2	4.8	2.1	2.2	2.2	2.3	2.4
1950	72	35.1	5.7	-4.6	-5.1	-5.6	-	-	33.5	5.8	-4.6	-5.0	-5.3	-	-
	67	35.0	5.4	4.0	3.5	3.0	2.6	-	33.3	5.7	3.0	2.7	2.3	1.9	-
	62	31.3	5.0	12.4	12.0	11.5	11.0	10.6	29.1	4.9	11.0	10.6	10.3	9.9	9.5
	57	31.2	5.0	14.6	14.2	13.7	13.3	12.8	29.4	4.9	12.2	11.9	11.5	11.2	10.8
2275	72	35.9	5.7	-7.6	-8.4	-	-	-	34.5	5.9	-	-	-	-	-
	67	35.8	5.4	6.6	5.8	5.0	4.2	-	34.4	5.8	5.7	4.9	4.1	3.3	-
	62	32.0	5.0	20.5	19.7	18.9	18.1	17.3	30.1	5.1	19.9	19.1	18.3	17.4	16.6
	57	31.9	5.0	23.6	23.4	22.6	21.8	21.0	30.4	5.0	21.8	21.6	20.8	20.0	19.2
2600	72	36.7	5.7	-	-	-	-	-	35.6	6.0	-	-	-	-	-
	67	36.6	5.4	9.2	8.1	6.9	5.7	-	35.5	5.9	8.5	7.2	6.0	4.7	-
	62	32.7	5.0	28.7	27.5	26.3	25.2	24.0	31.0	5.2	28.8	27.5	26.3	25.0	23.8
	57	32.6	5.0	32.6	32.6	31.4	30.3	29.1	31.3	5.2	31.3	31.3	30.1	28.8	27.6
2925	72	37.0	5.6	-	-	-	-	-	35.9	5.8	-	-	-	-	-
	67	36.9	5.4	11.5	10.2	8.8	7.4	-	35.8	5.8	10.9	9.4	7.9	6.4	-
	62	33.0	4.9	30.9	30.4	29.0	27.6	26.2	31.3	5.0	30.2	29.6	28.0	26.5	25.0
	57	32.8	4.9	32.8	32.8	31.5	30.1	28.7	31.6	5.0	31.6	31.6	30.1	28.6	27.1
3250	72	37.2	5.6	-	-	-	-	-	36.2	5.7	-	-	-	-	-
	67	37.1	5.3	13.9	12.3	10.7	9.1	-	36.1	5.6	13.3	11.5	9.8	8.0	-
	62	33.2	4.9	33.2	33.2	31.6	30.0	28.4	31.6	4.9	31.6	31.6	29.8	28.1	26.3
	57	33.1	4.9	33.1	33.1	31.5	29.9	28.3	31.9	4.9	31.9	31.9	30.1	28.4	26.6

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR090 (7.5 Ton) Cooling

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
1875	77	105.8	5.6	45.9	38.3	30.8	-	-	-	102.9	6.3	42.8	35.3	27.9	-	-	-
	72	98.8	5.6	58.9	51.3	43.7	36.2	-	-	95.7	6.3	56.0	48.5	41.1	33.6	-	-
	67	91.9	5.5	71.9	64.3	56.7	49.2	41.6	-	88.5	6.2	69.2	61.7	54.2	46.8	39.3	-
	62	84.5	5.5	84.5	79.9	70.2	62.6	55.0	47.5	81.5	6.1	81.5	77.2	66.5	59.0	51.5	44.1
2250	77	111.9	5.6	51.8	42.8	33.9	-	-	-	107.5	6.4	48.5	39.6	30.8	-	-	-
	72	104.5	5.6	66.1	57.1	48.2	39.3	-	-	100.0	6.3	63.0	54.2	45.4	36.5	-	-
	67	97.1	5.5	80.4	71.4	62.5	53.6	44.6	-	92.5	6.2	77.6	68.8	59.9	51.1	42.2	-
	62	89.3	5.5	89.3	86.3	77.3	68.4	59.5	50.5	85.1	6.2	85.1	82.3	73.4	64.6	55.8	46.9
	57	88.6	5.5	88.6	88.6	80.1	71.1	62.2	53.3	84.7	6.2	84.7	84.1	75.3	66.4	57.6	48.8
2625	77	118.0	5.6	57.6	47.3	37.0	-	-	-	112.1	6.4	54.1	43.9	33.7	-	-	-
	72	110.2	5.6	73.2	62.9	52.7	42.4	-	-	104.3	6.3	70.0	59.8	49.6	39.4	-	-
	67	102.4	5.5	88.9	78.6	68.3	58.0	47.7	-	96.4	6.3	86.0	75.8	65.6	55.4	45.2	-
	62	94.2	5.5	94.2	92.6	84.5	74.2	63.9	53.6	88.8	6.2	88.8	87.4	80.4	70.2	60.0	49.8
	57	93.5	5.5	93.5	93.5	87.5	77.2	66.9	56.6	88.3	6.2	88.3	88.0	82.4	72.2	62.0	51.8
3000	77	124.1	5.6	63.5	51.8	40.2	-	-	-	116.7	6.4	59.7	48.2	36.6	-	-	-
	72	115.9	5.6	80.4	68.8	57.1	45.5	-	-	108.5	6.3	77.1	65.5	53.9	42.4	-	-
	67	107.7	5.5	97.4	85.7	74.0	62.4	50.7	-	100.4	6.3	94.4	82.8	71.3	59.7	48.1	-
	62	99.0	5.5	99.0	99.0	91.6	80.0	68.3	56.6	92.4	6.2	92.4	92.4	87.3	75.8	64.2	52.7
	57	98.3	5.5	98.3	98.3	94.9	83.2	71.6	59.9	91.9	6.2	91.9	91.9	89.5	78.0	66.4	54.8
3375	72	115.5	5.6	81.8	70.3	58.8	47.3	-	-	108.7	6.4	79.1	67.5	55.9	44.3	-	-
	67	107.3	5.5	101.4	87.7	76.2	64.7	53.2	-	100.5	6.3	97.1	85.5	73.9	62.2	50.6	-
	62	98.7	5.5	98.7	98.7	95.0	83.5	72.0	60.4	92.5	6.2	92.5	92.5	90.0	78.4	66.7	55.1
	57	98.0	5.5	98.0	98.0	96.3	84.7	73.2	61.7	92.0	6.3	92.0	92.0	90.8	79.2	67.6	56.0
3750	72	115.1	5.6	83.2	71.9	60.5	49.1	-	-	108.8	6.4	81.2	69.5	57.9	46.2	-	-
	67	107.0	5.6	105.4	89.8	78.4	67.0	55.6	-	100.6	6.3	99.8	88.1	76.4	64.8	53.1	-
	62	98.4	5.5	98.4	98.4	98.4	87.0	75.6	64.3	92.6	6.2	92.6	92.6	92.6	80.9	69.3	57.6
	57	97.6	5.5	97.6	97.6	97.6	86.3	74.9	63.5	92.1	6.3	92.1	92.1	92.1	80.4	68.8	57.1
		95°F								**105°F**							
1875	77	100.0	7.1	39.7	32.4	25.0	-	-	-	93.5	7.9	35.7	30.0	22.7	-	-	-
	72	92.6	7.0	53.1	45.7	38.4	31.0	-	-	86.1	7.9	50.5	43.2	36.0	28.7	-	-
	67	85.2	6.9	66.5	59.1	51.8	44.4	37.0	-	78.7	7.8	65.2	56.4	49.2	42.0	34.7	-
	62	78.6	6.8	78.6	74.5	62.8	55.4	48.0	40.7	72.5	7.7	72.5	70.5	58.5	51.2	44.0	36.7
2250	77	103.1	7.1	45.2	36.4	27.7	-	-	-	96.1	8.0	42.3	33.7	25.2	-	-	-
	72	95.4	7.0	60.0	51.3	42.5	33.8	-	-	88.5	7.9	56.9	48.4	39.8	31.2	-	-
	67	87.8	6.9	74.8	66.1	57.3	48.6	39.9	-	80.9	7.8	71.6	63.0	54.4	45.9	37.3	-
	62	81.0	6.9	81.0	78.3	69.6	60.8	52.1	43.3	74.5	7.8	74.5	73.2	64.7	56.1	47.6	39.0
	57	80.7	6.9	80.7	79.2	70.5	61.7	53.0	44.3	75.4	7.8	75.4	73.8	65.3	56.7	48.1	39.5
2625	77	106.2	7.2	50.6	40.5	30.4	-	-	-	98.6	8.0	48.9	37.5	27.6	-	-	-
	72	98.3	7.1	66.9	56.8	46.6	36.5	-	-	90.9	7.9	63.4	53.5	43.6	33.7	-	-
	67	90.4	7.0	83.1	73.0	62.9	52.8	42.7	-	83.1	7.9	78.0	69.6	59.7	49.8	39.9	-
	62	83.4	6.9	83.4	82.1	76.3	66.2	56.1	46.0	76.5	7.8	76.5	75.9	70.9	61.0	51.1	41.2
	57	83.1	6.9	83.1	82.4	77.3	67.2	57.1	47.0	77.4	7.8	77.4	76.6	71.5	61.6	51.8	41.9
3000	77	109.2	7.2	56.0	44.5	33.1	-	-	-	101.2	8.1	55.4	41.2	30.0	-	-	-
	72	101.2	7.1	73.7	62.3	50.8	39.3	-	-	93.2	8.0	69.9	58.7	47.5	36.3	-	-
	67	93.1	7.0	91.4	80.0	68.5	57.0	45.6	-	85.2	7.9	84.4	76.2	64.9	53.7	42.5	-
	62	85.8	6.9	85.8	85.8	83.1	71.6	60.1	48.7	78.5	7.8	78.5	78.5	77.2	65.9	54.7	43.5
	57	85.6	7.0	85.6	85.6	84.2	72.7	61.3	49.8	79.4	7.9	79.4	79.4	77.8	66.6	55.4	44.2
3375	72	101.8	7.1	76.5	64.7	53.0	41.3	-	-	94.2	8.0	73.3	61.7	50.0	38.3	-	-
	67	93.6	7.0	92.8	83.2	71.5	59.8	48.0	-	86.1	7.9	85.7	79.7	68.4	56.7	45.0	-
	62	86.4	6.9	86.4	86.4	85.0	73.3	61.5	49.8	79.3	7.8	79.3	79.3	78.7	67.0	55.3	43.6
	57	86.1	7.0	86.1	86.1	85.4	73.7	61.9	50.2	80.2	7.9	80.2	80.2	79.4	67.8	56.1	44.4
3750	72	102.4	7.1	79.2	67.2	55.2	43.3	-	-	95.2	8.0	76.7	64.6	52.5	40.4	-	-
	67	94.2	7.0	94.2	86.5	74.5	62.5	50.5	-	87.0	7.9	87.0	83.1	71.8	59.7	47.5	-
	62	86.9	7.0	86.9	86.9	86.9	74.9	62.9	50.9	80.2	7.8	80.2	80.2	80.2	68.0	55.9	43.8
	57	86.6	7.0	86.6	86.6	86.6	74.6	62.6	50.6	81.0	7.9	81.0	81.0	81.0	68.9	56.8	44.7

ZR090 (7.5 Ton) Cooling (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
1875	77	87.0	8.8	31.8	27.6	20.5	-	-	-	80.5	9.7	27.4	25.2	18.3	-	-	-
	72	79.6	8.7	47.8	40.7	33.6	26.5	-	-	73.1	9.6	45.1	38.1	31.2	24.2	-	-
	67	72.2	8.7	63.8	53.7	46.6	39.5	32.4	-	65.8	9.6	62.5	51.1	44.1	37.1	30.1	-
	62	66.5	8.6	66.5	66.5	54.1	47.0	39.9	32.8	60.5	9.5	60.5	60.5	49.8	42.8	35.8	28.9
2250	77	89.0	8.9	39.5	31.1	22.7	-	-	-	82.0	9.7	36.6	28.4	20.2	-	-	-
	72	81.5	8.8	53.9	45.5	37.1	28.7	-	-	74.5	9.7	50.9	42.6	34.4	26.2	-	-
	67	74.0	8.7	68.4	60.0	51.6	43.2	34.8	-	67.0	9.6	65.1	56.9	48.7	40.4	32.2	-
	62	68.1	8.6	68.1	68.1	59.8	51.4	43.0	34.6	61.6	9.5	61.6	61.6	55.0	46.7	38.5	30.3
	57	70.0	8.7	70.0	68.4	60.0	51.6	43.2	34.8	64.6	9.6	64.6	63.0	54.8	46.6	38.3	30.1
2625	77	91.1	8.9	47.2	34.5	24.8	-	-	-	83.6	9.8	45.8	31.5	22.0	-	-	-
	72	83.4	8.8	60.0	50.3	40.6	31.0	-	-	76.0	9.7	56.6	47.1	37.6	28.2	-	-
	67	75.7	8.8	72.9	66.2	56.5	46.8	37.1	-	68.3	9.6	67.8	62.7	53.2	43.8	34.3	-
	62	69.7	8.7	69.7	69.7	65.5	55.9	46.2	36.5	62.8	9.6	62.8	62.8	60.1	50.7	41.2	31.7
	57	71.6	8.7	71.6	70.8	65.8	56.1	46.4	36.7	65.8	9.6	65.8	65.0	60.0	50.5	41.0	31.5
3000	77	93.2	8.9	54.9	38.0	27.0	-	-	-	85.2	9.8	55.1	34.7	23.9	-	-	-
	72	85.3	8.9	66.1	55.2	44.2	33.2	-	-	77.4	9.7	62.3	51.6	40.9	30.2	-	-
	67	77.4	8.8	77.4	72.4	61.4	50.4	39.4	-	69.6	9.7	69.6	68.6	57.8	47.1	36.4	-
	62	71.2	8.7	71.2	71.2	71.2	60.3	49.3	38.3	63.9	9.6	63.9	63.9	63.9	54.6	43.9	33.1
	57	73.2	8.8	73.2	73.2	71.5	60.5	49.5	38.6	67.1	9.6	67.1	67.1	65.1	54.4	43.7	32.9
3375	72	86.6	8.9	70.2	58.6	47.0	35.3	-	-	79.0	9.7	67.1	55.5	43.9	32.4	-	-
	67	78.6	8.8	78.6	76.1	65.2	53.6	42.0	-	71.1	9.7	71.1	71.1	62.1	50.5	39.0	-
	62	72.3	8.7	72.3	72.3	72.3	60.7	49.1	37.5	65.3	9.6	65.3	65.3	65.3	54.4	42.9	31.3
	57	74.4	8.8	74.4	74.4	73.5	61.9	50.2	38.6	68.5	9.6	68.5	68.5	67.5	55.9	44.4	32.8
3750	72	87.9	8.8	74.3	62.0	49.7	37.5	-	-	80.7	9.7	71.8	59.4	47.0	34.6	-	-
	67	79.8	8.8	79.8	79.8	69.1	56.8	44.6	-	72.6	9.6	72.6	72.6	66.4	54.0	41.6	-
	62	73.4	8.7	73.4	73.4	73.4	61.2	48.9	36.6	66.7	9.6	66.7	66.7	66.7	54.3	41.9	29.5
	57	75.5	8.7	75.5	75.5	75.5	63.2	50.9	38.7	69.9	9.6	69.9	69.9	69.9	57.5	45.1	32.7

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR090 (7.5 Ton) Reheat

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)				
CFM	WB (°F)			85	80	75	70	65			85	80	75	70	65
		35°F							**45°F**						
1875	72	38.6	5.0	5.2	5.1	5.0	-	-	42.1	5.3	-0.1	-0.4	-0.8	-	-
	67	37.9	4.8	0.6	0.5	0.4	0.3	-	41.3	5.1	3.0	2.6	2.3	2.0	-
	62	35.4	5.6	-5.0	-5.1	-5.2	-5.3	-5.3	39.5	5.4	6.2	5.9	5.5	5.2	4.9
2250	72	43.5	4.7	6.3	5.6	4.8	-	-	44.5	5.1	-0.4	-1.1	-1.9	-	-
	67	42.8	4.6	7.8	7.0	6.3	5.5	-	43.8	5.0	7.4	6.7	5.9	5.1	-
	62	40.1	5.3	8.3	7.6	6.8	6.1	5.3	41.7	5.2	15.5	14.8	14.0	13.2	12.5
	57	41.4	5.0	14.3	13.6	12.8	12.0	11.3	41.4	5.1	21.6	20.8	20.0	19.3	18.5
2625	72	48.5	4.4	7.5	6.0	4.6	-	-	47.0	4.9	-0.6	-1.8	-3.0	-	-
	67	47.7	4.3	15.0	13.6	12.1	10.7	-	46.2	4.8	11.9	10.7	9.4	8.2	-
	62	44.8	5.0	21.7	20.3	18.8	17.4	15.9	44.0	5.0	24.9	23.7	22.5	21.3	20.0
	57	46.1	4.7	32.5	32.1	30.7	29.2	27.8	43.6	4.9	33.7	33.4	32.1	30.9	29.7
3000	72	53.5	4.1	8.6	6.5	4.3	-	-	49.4	4.8	-0.8	-2.5	-4.1	-	-
	67	52.6	4.0	22.3	20.1	18.0	15.9	-	48.6	4.6	16.3	14.7	13.0	11.4	-
	62	49.5	4.7	35.1	33.0	30.8	28.7	26.5	46.3	4.8	34.2	32.6	30.9	29.3	27.6
	57	50.7	4.4	50.7	50.7	48.5	46.4	44.2	45.9	4.7	45.9	45.9	44.3	42.6	41.0
3375	72	50.5	4.1	10.5	8.4	6.2	-	-	48.1	4.8	-1.0	-2.8	-4.5	-	-
	67	49.6	4.0	23.9	21.8	19.6	17.5	-	47.3	4.6	18.2	16.5	14.7	13.0	-
	62	46.7	4.7	38.1	35.2	33.1	30.9	28.8	45.1	4.8	38.3	36.6	34.9	33.1	31.4
	57	47.9	4.4	47.9	47.9	45.8	43.7	41.5	44.7	4.7	44.7	44.7	42.9	41.2	39.5
3750	72	47.6	4.1	12.4	10.3	8.2	-	-	46.8	4.7	-1.3	-3.1	-4.9	-	-
	67	46.7	4.0	25.5	23.4	21.3	19.1	-	46.0	4.6	20.1	18.3	16.5	14.6	-
	62	43.9	4.7	41.1	37.4	35.3	33.2	31.0	43.9	4.8	42.5	40.6	38.8	37.0	35.2
	57	45.2	4.4	45.2	45.2	43.1	40.9	38.8	43.5	4.7	43.5	43.5	41.6	39.8	38.0
		55°F							**65°F**						
1875	72	45.6	5.6	-5.4	-6.0	-6.6	-	-	43.5	5.9	-3.8	-4.2	-4.5	-	-
	67	44.8	5.4	5.4	4.8	4.2	3.6	-	42.6	5.7	3.6	3.2	2.8	2.5	-
	62	43.5	5.2	17.4	16.8	16.3	15.7	15.1	40.6	5.5	11.6	11.2	10.8	10.4	10.1
2250	72	45.5	5.5	-7.0	-7.8	-8.6	-	-	43.7	5.9	-6.3	-6.9	-7.6	-	-
	67	44.7	5.4	7.0	6.3	5.5	4.7	-	42.8	5.7	5.9	5.3	4.6	3.9	-
	62	43.4	5.1	22.7	22.0	21.2	20.4	19.6	40.8	5.4	18.9	18.2	17.6	16.9	16.2
	57	41.3	5.1	28.8	28.0	27.3	26.5	25.7	39.3	5.4	23.3	22.6	21.9	21.3	20.6
2625	72	45.4	5.5	-8.7	-9.6	-	-	-	44.0	5.8	-8.7	-9.7	-	-	-
	67	44.7	5.3	8.7	7.7	6.8	5.8	-	43.0	5.6	8.3	7.3	6.4	5.4	-
	62	43.3	5.1	28.0	27.1	26.1	25.2	24.2	41.0	5.4	26.2	25.3	24.3	23.3	22.4
	57	41.2	5.0	35.0	34.6	33.6	32.7	31.7	39.5	5.3	31.5	31.2	30.2	29.2	28.3
3000	72	45.4	5.4	-	-	-	-	-	44.2	5.8	-	-	-	-	-
	67	44.6	5.3	10.3	9.2	8.0	6.9	-	43.3	5.6	10.6	9.4	8.1	6.9	-
	62	43.2	5.0	33.3	32.2	31.0	29.9	28.7	41.2	5.3	33.5	32.3	31.0	29.8	28.6
	57	41.1	5.0	41.1	41.1	40.0	38.8	37.7	39.7	5.3	39.7	39.7	38.5	37.2	36.0
3375	72	45.7	5.4	-	-	-	-	-	44.6	5.8	-	-	-	-	-
	67	44.9	5.2	12.5	11.2	9.9	8.5	-	43.7	5.5	13.0	11.6	10.1	8.6	-
	62	43.5	5.0	38.6	38.0	36.7	35.3	34.0	41.6	5.3	37.8	37.2	35.7	34.2	32.8
	57	41.4	4.9	41.4	41.4	40.1	38.7	37.4	40.1	5.3	40.1	40.1	38.6	37.2	35.7
3750	72	46.0	5.3	-	-	-	-	-	45.1	5.7	-	-	-	-	-
	67	45.2	5.2	14.7	13.2	11.7	10.1	-	44.1	5.5	15.4	13.7	12.1	10.4	-
	62	43.9	4.9	43.9	43.9	42.3	40.8	39.3	42.0	5.3	42.0	42.0	40.4	38.7	37.0
	57	41.7	4.9	41.7	41.7	40.2	38.7	37.1	40.5	5.2	40.5	40.5	38.8	37.1	35.4

ZR090 (7.5 Ton) Reheat (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)				
CFM	WB (°F)			85	80	75	70	65			85	80	75	70	65
		75°F							**85°F**						
1875	72	41.4	6.3	-2.1	-2.3	-2.5	-	-	39.2	6.7	-0.5	-0.5	-0.5	-	-
	67	40.3	6.0	1.8	1.7	1.5	1.3	-	38.0	6.3	0.1	0.1	0.1	0.1	-
	62	37.7	5.8	5.8	5.6	5.4	5.2	5.0	34.9	6.0	-0.1	0.0	0.0	0.0	0.0
2250	72	41.9	6.3	-5.5	-6.1	-6.6	-	-	40.1	6.6	-4.7	-5.2	-5.7	-	-
	67	40.9	6.0	4.9	4.3	3.7	3.2	-	38.9	6.3	3.8	3.3	2.8	2.4	-
	62	38.2	5.7	15.1	14.5	13.9	13.4	12.8	35.7	6.0	11.3	10.8	10.3	9.9	9.4
	57	37.3	5.7	17.7	17.2	16.6	16.0	15.5	35.3	6.0	12.2	11.7	11.3	10.8	10.3
2625	72	42.5	6.2	-8.8	-9.8	-	-	-	41.0	6.6	-8.9	-9.9	-	-	-
	67	41.4	5.9	7.9	6.9	6.0	5.0	-	39.8	6.2	7.5	6.5	5.6	4.6	-
	62	38.8	5.7	24.4	23.4	22.5	21.5	20.6	36.5	6.0	22.6	21.6	20.7	19.7	18.8
	57	37.8	5.7	28.0	27.7	26.8	25.8	24.9	36.1	6.0	24.6	24.3	23.4	22.4	21.5
3000	72	43.1	6.2	-	-	-	-	-	41.9	6.6	-	-	-	-	-
	67	42.0	5.9	10.9	9.6	8.2	6.9	-	40.7	6.2	11.2	9.8	8.3	6.9	-
	62	39.3	5.6	33.7	32.4	31.0	29.7	28.4	37.3	5.9	33.9	32.5	31.0	29.6	28.2
	57	38.3	5.6	38.3	38.3	37.0	35.6	34.3	36.9	5.9	36.9	36.9	35.5	34.1	32.6
3375	72	43.6	6.2	-	-	-	-	-	42.5	6.5	-	-	-	-	-
	67	42.5	5.9	13.5	11.9	10.3	8.7	-	41.2	6.2	14.0	12.3	10.6	8.9	-
	62	39.7	5.6	37.0	36.3	34.7	33.1	31.5	37.9	5.9	36.1	35.4	33.7	32.0	30.3
	57	38.8	5.6	38.8	38.8	37.2	35.6	34.0	37.4	5.9	37.4	37.4	35.7	34.0	32.3
3750	72	44.1	6.1	-	-	-	-	-	43.1	6.5	-	-	-	-	-
	67	43.0	5.8	16.1	14.3	12.4	10.6	-	41.8	6.2	16.8	14.8	12.8	10.8	-
	62	40.2	5.6	40.2	40.2	38.4	36.5	34.7	38.4	5.9	38.4	38.4	36.4	34.4	32.4
	57	39.2	5.6	39.2	39.2	37.4	35.5	33.7	37.9	5.9	37.9	37.9	36.0	34.0	32.0

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR102 (8.5 Ton) Cooling

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
2125	77	121.9	6.4	54.3	43.2	32.9	-	-	-	118.7	7.4	52.3	42.1	32.0	-	-	-
	72	118.1	6.4	71.1	60.8	50.5	40.2	-	-	112.8	7.3	69.0	58.8	48.6	38.5	-	-
	67	114.3	6.3	87.8	78.4	68.1	57.8	47.5	-	106.9	7.2	85.6	75.4	65.3	55.1	45.0	-
	62	105.8	6.2	105.8	98.7	83.7	73.4	63.1	52.8	98.9	7.0	98.9	95.3	80.2	70.1	59.9	49.8
2550	77	126.3	6.5	59.7	47.9	36.1	-	-	-	122.9	7.4	58.7	46.9	35.2	-	-	-
	72	122.4	6.4	79.1	67.3	55.5	43.7	-	-	116.8	7.3	77.0	65.3	53.5	41.8	-	-
	67	118.4	6.4	98.4	86.6	74.8	63.0	51.2	-	110.7	7.2	95.3	83.6	71.9	60.1	48.4	-
	62	109.7	6.2	109.7	104.9	92.0	80.2	68.4	56.6	102.4	7.1	102.4	100.1	88.3	76.6	64.9	53.1
	57	107.0	6.3	107.0	107.0	97.1	85.3	73.5	61.7	99.6	7.1	99.6	99.6	90.0	78.3	66.5	54.8
2975	77	130.7	6.5	65.1	52.7	39.4	-	-	-	127.2	7.4	65.0	51.7	38.4	-	-	-
	72	126.6	6.4	87.0	73.7	60.5	47.2	-	-	120.9	7.3	85.0	71.7	58.4	45.1	-	-
	67	122.6	6.4	108.9	94.8	81.5	68.2	54.9	-	114.6	7.2	105.1	91.7	78.4	65.1	51.8	-
	62	113.5	6.3	113.5	111.1	100.2	86.9	73.6	60.3	106.0	7.1	106.0	104.8	96.4	83.1	69.8	56.5
	57	110.8	6.3	110.8	110.8	105.8	92.5	79.2	65.9	103.0	7.2	103.0	103.0	98.2	84.9	71.6	58.3
3400	77	135.1	6.5	70.6	57.4	42.6	-	-	-	131.4	7.4	71.4	56.5	41.7	-	-	-
	72	130.9	6.5	95.0	80.2	65.4	50.6	-	-	124.9	7.3	93.1	78.2	63.3	48.4	-	-
	67	126.7	6.4	119.5	103.0	88.2	73.4	58.6	-	118.4	7.2	114.8	99.9	85.0	70.1	55.2	-
	62	117.3	6.3	117.3	117.3	108.5	93.7	78.9	64.1	109.5	7.1	109.5	109.5	104.5	89.6	74.7	59.8
	57	114.5	6.4	114.5	114.5	114.5	99.7	84.9	70.1	106.5	7.2	106.5	106.5	106.5	91.6	76.7	61.8
3825	72	130.9	6.5	99.4	84.1	68.8	53.5	-	-	125.4	7.4	98.3	82.6	66.9	51.2	-	-
	67	126.8	6.4	123.1	108.1	92.8	77.5	62.2	-	118.8	7.3	117.0	105.4	89.7	74.0	58.4	-
	62	117.4	6.3	117.4	117.4	112.9	97.6	82.3	67.0	109.9	7.1	109.9	109.9	107.4	91.7	76.0	60.3
	57	114.5	6.4	114.5	114.5	114.5	99.2	83.9	68.6	106.9	7.2	106.9	106.9	106.9	91.2	75.5	59.8
4250	72	131.0	6.5	103.7	87.9	72.1	56.3	-	-	125.9	7.4	103.4	86.9	70.4	53.9	-	-
	67	126.8	6.5	126.8	113.1	97.3	81.5	65.7	-	119.3	7.3	119.3	111.0	94.5	78.0	61.5	-
	62	117.4	6.3	117.4	117.4	117.4	101.6	85.8	70.0	110.4	7.2	110.4	110.4	110.4	93.8	77.3	60.8
	57	114.6	6.4	114.6	114.6	114.6	98.8	83.0	67.2	107.3	7.2	107.3	107.3	107.3	90.7	74.2	57.7
		95°F								**105°F**							
2125	77	115.5	8.3	50.3	41.1	31.1	-	-	-	108.8	9.3	44.7	38.2	28.2	-	-	-
	72	107.5	8.1	66.9	56.8	46.8	36.8	-	-	100.5	9.1	63.5	53.6	43.7	33.8	-	-
	67	99.5	8.0	83.4	72.5	62.5	52.5	42.4	-	92.1	9.0	82.4	69.0	59.1	49.2	39.3	-
	62	91.9	7.9	91.9	91.9	76.8	66.8	56.7	46.7	85.2	8.9	85.2	85.2	70.3	60.4	50.5	40.6
2550	77	119.5	8.3	57.6	46.0	34.3	-	-	-	112.4	9.3	54.4	42.9	31.3	-	-	-
	72	111.3	8.2	75.0	63.3	51.6	39.9	-	-	103.8	9.2	71.5	60.0	48.4	36.8	-	-
	67	103.0	8.0	92.3	80.6	68.9	57.2	45.6	-	95.1	9.0	88.6	77.1	65.5	53.9	42.3	-
	62	95.2	7.9	95.2	95.2	84.7	73.0	61.3	49.7	88.0	8.9	88.0	88.0	77.9	66.3	54.7	43.1
	57	92.1	7.9	92.1	92.1	82.9	71.2	59.6	47.9	85.8	9.0	85.8	85.8	76.4	64.9	53.3	41.7
2975	77	123.6	8.3	64.9	50.8	37.5	-	-	-	115.9	9.4	64.2	47.5	34.3	-	-	-
	72	115.1	8.2	83.1	69.7	56.4	43.1	-	-	107.0	9.2	79.5	66.3	53.1	39.8	-	-
	67	106.5	8.0	101.2	88.7	75.3	62.0	48.7	-	98.1	9.0	94.9	85.1	71.8	58.6	45.4	-
	62	98.5	7.9	98.5	98.5	92.6	79.3	65.9	52.6	90.8	8.9	90.8	90.8	85.4	72.2	58.9	45.7
	57	95.2	8.0	95.2	95.2	90.7	77.3	64.0	50.7	88.5	9.0	88.5	88.5	83.8	70.6	57.4	44.1
3400	77	127.7	8.4	72.3	55.6	40.7	-	-	-	119.5	9.4	74.0	52.2	37.3	-	-	-
	72	118.9	8.2	91.2	76.2	61.2	46.3	-	-	110.3	9.2	87.6	72.7	57.8	42.9	-	-
	67	110.1	8.1	110.1	96.7	81.8	66.8	51.8	-	101.2	9.1	101.2	93.1	78.2	63.3	48.4	-
	62	101.7	8.0	101.7	101.7	100.5	85.5	70.6	55.6	93.6	8.9	93.6	93.6	93.0	78.1	63.2	48.3
	57	98.4	8.0	98.4	98.4	98.4	83.4	68.5	53.5	91.2	9.0	91.2	91.2	91.2	76.4	61.5	46.6
3825	72	119.8	8.3	97.1	81.0	64.9	48.8	-	-	111.2	9.3	93.4	77.4	61.3	45.3	-	-
	67	110.9	8.1	110.9	102.8	86.7	70.6	54.5	-	102.0	9.1	102.0	97.2	83.0	67.0	51.0	-
	62	102.5	8.0	102.5	102.5	101.9	85.8	69.7	53.6	94.3	9.0	94.3	94.3	94.0	78.0	61.9	45.9
	57	99.2	8.0	99.2	99.2	99.2	83.1	67.0	50.9	92.0	9.1	92.0	92.0	92.0	75.9	59.9	43.9
4250	72	120.8	8.3	103.1	85.9	68.6	51.4	-	-	112.1	9.3	99.2	82.1	64.9	47.7	-	-
	67	111.8	8.1	111.8	108.9	91.7	74.4	57.2	-	102.8	9.1	102.8	101.3	87.8	70.7	53.5	-
	62	103.3	8.0	103.3	103.3	103.3	86.1	68.9	51.6	95.1	9.0	95.1	95.1	95.1	77.9	60.7	43.5
	57	99.9	8.1	99.9	99.9	99.9	82.7	65.5	48.3	92.7	9.1	92.7	92.7	92.7	75.5	58.4	41.2

ZR102 (8.5 Ton) Cooling (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
2125	77	102.2	10.3	39.0	35.2	25.4	-	-	-	95.6	11.4	36.2	31.0	22.6	-	-	-
	72	93.5	10.1	60.2	50.4	40.6	30.8	-	-	86.5	11.1	56.8	47.1	37.5	27.8	-	-
	67	84.8	10.0	81.3	65.5	55.8	46.0	36.2	-	77.4	10.9	77.4	62.1	52.4	42.7	33.1	-
	62	78.5	9.9	78.5	78.5	63.8	54.0	44.2	34.4	71.8	10.8	71.8	71.8	57.3	47.7	38.0	28.3
2550	77	105.2	10.4	51.2	39.7	28.3	-	-	-	98.0	11.4	49.9	36.6	25.3	-	-	-
	72	96.2	10.2	68.1	56.6	45.2	33.7	-	-	88.7	11.2	64.7	53.3	41.9	30.6	-	-
	67	87.3	10.0	85.0	73.5	62.0	50.6	39.1	-	79.4	11.0	79.4	70.0	58.6	47.3	35.9	-
	62	80.8	9.9	80.8	80.8	71.0	59.6	48.1	36.6	73.6	10.9	73.6	73.6	64.2	52.8	41.5	30.1
	57	79.6	10.0	79.6	79.6	69.9	58.5	47.0	35.5	73.3	11.0	73.3	73.3	63.4	52.1	40.7	29.3
2975	77	108.2	10.4	63.4	44.3	31.1	-	-	-	100.5	11.4	63.7	42.3	28.0	-	-	-
	72	99.0	10.2	76.0	62.9	49.7	36.6	-	-	90.9	11.2	72.5	59.5	46.4	33.4	-	-
	67	89.8	10.0	88.6	81.5	68.3	55.2	42.1	-	81.4	11.0	81.4	77.9	64.8	51.8	38.7	-
	62	83.1	9.9	83.1	83.1	78.2	65.1	51.9	38.8	75.4	10.9	75.4	75.4	71.0	58.0	44.9	31.9
	57	81.8	10.0	81.8	81.8	77.0	63.9	50.7	37.6	75.1	11.0	75.1	75.1	70.2	57.1	44.1	31.0
3400	77	111.2	10.4	75.7	48.8	34.0	-	-	-	102.9	11.4	77.4	47.9	30.7	-	-	-
	72	101.7	10.2	84.0	69.1	54.3	39.5	-	-	93.1	11.2	80.4	65.6	50.9	36.1	-	-
	67	92.3	10.0	92.3	89.5	74.6	59.8	45.0	-	83.3	11.0	83.3	83.3	71.1	56.3	41.6	-
	62	85.4	9.9	85.4	85.4	85.4	70.6	55.8	41.0	77.3	10.9	77.3	77.3	77.3	63.1	48.4	33.6
	57	84.1	10.0	84.1	84.1	84.1	69.3	54.5	39.6	77.0	11.0	77.0	77.0	77.0	62.2	47.5	32.7
3825	72	102.6	10.3	89.7	73.7	57.7	41.8	-	-	93.9	11.3	86.0	70.1	54.1	38.2	-	-
	67	93.0	10.1	93.0	91.6	79.3	63.3	47.4	-	84.0	11.1	84.0	84.0	75.6	59.7	43.8	-
	62	86.1	10.0	86.1	86.1	86.1	70.1	54.2	38.2	77.9	11.0	77.9	77.9	77.9	62.3	46.4	30.5
	57	84.8	10.1	84.8	84.8	84.8	68.8	52.8	36.9	77.6	11.1	77.6	77.6	77.6	61.7	45.8	29.8
4250	72	103.4	10.3	95.4	78.3	61.1	44.0	-	-	94.7	11.4	91.6	74.5	57.4	40.3	-	-
	67	93.8	10.1	93.8	93.8	84.0	66.9	49.7	-	84.7	11.1	84.7	84.7	80.2	63.1	46.0	-
	62	86.8	10.0	86.8	86.8	86.8	69.7	52.6	35.4	78.6	11.1	78.6	78.6	78.6	61.5	44.4	27.3
	57	85.5	10.1	85.5	85.5	85.5	68.3	51.2	34.1	78.2	11.2	78.2	78.2	78.2	61.2	44.1	27.0

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR102 (8.5 Ton) Reheat

Air on Evaporator Coil		Temperature of Air on Condenser Coil														
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)				
CFM	WB (°F)			Return Dry Bulb (°F)							Return Dry Bulb (°F)				
				85	80	75	70	65			85	80	75	70	65
		35°F							**45°F**						
2125	72	72.0	5.0	8.5	7.1	5.7	-	-	62.7	5.5	3.5	2.4	1.3	-	-
	67	74.0	4.9	11.6	10.2	8.8	7.3	-	61.5	5.3	9.5	8.4	7.2	6.1	-
	62	61.6	5.1	21.8	20.4	18.9	17.5	16.1	53.9	5.3	18.2	17.1	16.0	14.9	13.8
2550	72	73.3	4.9	13.4	11.3	9.2	-	-	64.8	5.5	5.6	3.8	2.1	-	-
	67	75.3	4.8	17.9	15.8	13.7	11.6	-	63.6	5.3	14.9	13.2	11.4	9.7	-
	62	62.6	5.0	33.6	31.5	29.4	27.3	25.2	55.8	5.2	28.7	26.9	25.2	23.4	21.7
	57	58.2	4.7	37.4	35.3	33.2	31.2	29.1	50.7	5.0	33.0	31.2	29.5	27.7	26.0
2975	72	74.5	4.8	18.2	15.5	12.7	-	-	66.9	5.4	7.6	5.2	2.8	-	-
	67	76.7	4.7	24.1	21.4	18.7	15.9	-	65.7	5.2	20.4	18.0	15.6	13.2	-
	62	63.6	5.0	45.3	42.6	39.9	37.1	34.4	57.6	5.2	39.2	36.8	34.4	32.0	29.6
	57	59.2	4.7	48.8	47.8	45.0	42.3	39.6	52.4	5.0	43.5	42.6	40.2	37.8	35.4
3400	72	75.7	4.7	23.0	19.6	16.2	-	-	69.1	5.3	9.7	6.6	3.6	-	-
	67	78.1	4.6	30.4	27.0	23.6	20.2	-	67.8	5.1	25.8	22.8	19.7	16.7	-
	62	64.7	4.9	57.1	53.7	50.4	47.0	43.6	59.5	5.1	49.7	46.6	43.6	40.5	37.5
	57	60.2	4.6	60.2	60.2	56.8	53.5	50.1	54.0	4.9	54.0	54.0	51.0	47.9	44.9
3825	72	73.9	4.7	25.8	22.4	18.9	-	-	70.1	5.3	10.9	7.5	4.2	-	-
	67	76.5	4.6	33.7	30.2	26.8	23.3	-	68.7	5.1	29.2	25.8	22.5	19.1	-
	62	63.0	4.9	62.0	60.1	56.7	53.2	49.8	60.3	5.1	55.4	52.9	49.5	46.1	42.8
	57	58.8	4.6	58.8	58.8	55.4	51.9	48.4	54.8	4.9	54.8	54.8	51.4	48.1	44.7
4250	72	72.0	4.7	28.7	25.1	21.6	-	-	71.0	5.3	12.1	8.4	4.7	-	-
	67	75.0	4.6	37.0	33.5	29.9	26.4	-	69.7	5.1	32.5	28.9	25.2	21.5	-
	62	61.4	4.9	61.4	61.4	61.4	59.5	55.9	61.2	5.1	61.2	59.1	55.4	51.7	48.0
	57	57.4	4.6	57.4	57.4	53.9	50.4	46.8	55.6	4.9	55.6	55.6	51.9	48.2	44.5
		55°F							**65°F**						
2125	72	53.3	6.1	-1.5	-2.2	-3.0	-	-	48.0	6.2	-1.2	-1.6	-2.1	-	-
	67	49.0	5.8	7.3	6.5	5.7	4.9	-	42.2	6.1	4.4	4.0	3.5	3.1	-
	62	46.3	5.4	14.6	13.9	13.1	12.3	11.5	39.1	5.8	9.5	9.1	8.6	8.2	7.7
2550	72	56.3	6.0	-2.2	-3.6	-5.0	-	-	53.6	6.1	-2.5	-3.6	-4.7	-	-
	67	51.8	5.7	11.9	10.5	9.1	7.7	-	47.0	6.1	9.1	8.0	6.9	5.8	-
	62	49.0	5.4	23.8	22.4	21.0	19.6	18.1	43.5	5.7	20.2	19.1	18.0	16.9	15.8
	57	43.2	5.3	28.6	27.1	25.7	24.3	22.9	36.3	5.7	22.6	21.5	20.4	19.3	18.2
2975	72	59.4	6.0	-2.9	-5.0	-7.1	-	-	59.2	6.1	-3.9	-5.6	-7.4	-	-
	67	54.6	5.7	16.6	14.5	12.5	10.4	-	51.7	6.0	13.7	12.0	10.2	8.5	-
	62	51.6	5.4	33.0	31.0	28.9	26.8	24.8	47.8	5.7	30.9	29.1	27.4	25.7	23.9
	57	45.5	5.3	38.2	37.5	35.4	33.4	31.3	39.8	5.6	33.0	32.4	30.7	28.9	27.2
3400	72	62.4	6.0	-3.7	-6.4	-9.1	-	-	64.8	6.1	-5.2	-7.6	-10.0	-	-
	67	57.4	5.7	21.3	18.5	15.8	13.1	-	56.5	6.0	18.3	15.9	13.6	11.2	-
	62	54.3	5.3	42.2	39.5	36.8	34.1	31.4	52.2	5.7	41.6	39.2	36.8	34.4	32.0
	57	47.9	5.2	47.9	47.9	45.2	42.4	39.7	43.3	5.6	43.3	43.3	41.0	38.6	36.2
3825	72	66.2	5.9	-4.1	-7.3	-10.6	-	-	67.4	6.0	-6.4	-9.3	-	-	-
	67	60.9	5.6	24.7	21.4	18.1	14.9	-	58.8	6.0	22.2	19.2	16.3	13.3	-
	62	57.6	5.3	48.8	45.6	42.3	39.0	35.8	54.4	5.6	47.7	45.5	42.6	39.6	36.6
	57	50.8	5.2	50.8	50.8	47.5	44.3	41.0	45.2	5.6	45.2	45.2	42.2	39.3	36.3
4250	72	70.1	5.9	-4.5	-8.3	-	-	-	70.0	6.0	-	-	-	-	-
	67	64.5	5.6	28.1	24.2	20.4	16.6	-	61.1	5.9	26.0	22.5	19.0	15.4	-
	62	60.9	5.3	55.5	51.6	47.8	44.0	40.2	56.5	5.6	53.8	51.9	48.3	44.8	41.2
	57	53.7	5.2	53.7	53.7	49.9	46.1	42.3	47.1	5.5	47.1	47.1	43.5	40.0	36.4

ZR102 (8.5 Ton) Reheat (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)				
CFM	WB (°F)			85	80	75	70	65			85	80	75	70	65
		75°F							**85°F**						
2125	72	42.8	6.3	-0.9	-1.0	-1.1	-	-	37.6	6.4	-0.6	-0.4	-0.1	-	-
	67	35.4	6.5	1.6	1.5	1.4	1.2	-	28.6	6.8	-1.2	-1.0	-0.8	-0.6	-
	62	31.9	6.2	4.4	4.3	4.2	4.1	4.0	24.7	6.5	-0.7	-0.5	-0.3	0.0	0.2
2550	72	50.9	6.2	-2.8	-3.6	-4.4	-	-	48.3	6.4	-3.2	-3.6	-4.1	-	-
	67	42.1	6.4	6.2	5.4	4.7	3.9	-	37.3	6.8	3.3	2.9	2.5	2.0	-
	62	38.0	6.1	16.6	15.8	15.0	14.3	13.5	32.5	6.5	13.0	12.5	12.1	11.6	11.2
	57	29.4	6.1	16.6	15.8	15.0	14.3	13.5	22.5	6.4	10.6	10.1	9.7	9.3	8.8
2975	72	59.1	6.2	-4.8	-6.2	-7.7	-	-	58.9	6.3	-5.8	-6.9	-8.0	-	-
	67	48.9	6.4	10.8	9.4	8.0	6.6	-	46.0	6.7	7.9	6.8	5.7	4.6	-
	62	44.0	6.1	28.7	27.3	25.9	24.5	23.1	40.2	6.4	26.6	25.5	24.4	23.3	22.2
	57	34.1	6.0	27.7	27.3	25.9	24.5	23.1	28.4	6.4	22.4	22.2	21.1	20.0	19.0
3400	72	67.2	6.2	-6.8	-8.9	-10.9	-	-	69.6	6.3	-8.4	-10.1	-	-	-
	67	55.6	6.3	15.4	13.3	11.3	9.2	-	54.7	6.7	12.5	10.7	9.0	7.3	-
	62	50.1	6.0	40.9	38.8	36.8	34.7	32.6	48.0	6.4	40.2	38.5	36.7	35.0	33.3
	57	38.8	6.0	38.8	38.8	36.8	34.7	32.6	34.3	6.3	34.3	34.3	32.6	30.8	29.1
3825	72	68.6	6.1	-	-	-	-	-	69.7	6.2	-	-	-	-	-
	67	56.7	6.3	19.7	17.0	14.4	11.7	-	54.6	6.6	17.2	14.9	12.5	10.2	-
	62	51.1	6.0	46.5	45.5	42.8	40.1	37.5	47.9	6.3	45.3	45.4	43.1	40.7	38.3
	57	39.6	5.9	39.6	39.6	36.9	34.3	31.6	34.0	6.3	34.0	34.0	31.6	29.3	26.9
4250	72	69.9	6.1	-	-	-	-	-	69.8	6.2	-	-	-	-	-
	67	57.8	6.3	24.0	20.8	17.5	14.2	-	54.5	6.6	22.0	19.0	16.0	13.1	-
	62	52.1	5.9	52.1	52.1	48.8	45.6	42.3	47.7	6.3	47.7	47.7	47.7	46.4	43.4
	57	40.4	5.9	40.4	40.4	37.1	33.9	30.6	33.7	6.2	33.7	33.7	30.7	27.8	24.8

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR120 (10 Ton) Cooling

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
2500	77	145.9	7.7	59.8	48.6	37.5	-	-	-	140.4	8.5	59.0	47.8	36.6	-	-	-
	72	139.2	7.5	79.5	68.3	57.1	46.0	-	-	131.7	8.3	77.8	66.6	55.4	44.2	-	-
	67	132.5	7.3	99.2	88.0	76.8	65.6	54.5	-	122.9	8.2	96.7	85.5	74.3	63.1	51.9	-
	62	114.8	7.2	114.8	114.7	92.8	81.6	70.4	59.2	108.0	8.1	108.0	108.0	89.9	78.7	67.5	56.3
3000	77	152.7	7.7	68.3	55.1	41.9	-	-	-	146.7	8.5	66.8	53.7	40.5	-	-	-
	72	145.7	7.5	90.3	77.1	63.9	50.7	-	-	137.5	8.4	87.8	74.6	61.5	48.3	-	-
	67	138.6	7.3	112.4	99.1	85.9	72.7	59.5	-	128.4	8.2	108.7	95.5	82.4	69.3	56.1	-
	62	120.2	7.2	120.2	120.1	103.8	90.6	77.4	64.2	112.9	8.1	112.9	112.8	99.7	86.5	73.4	60.3
	57	121.9	7.2	121.9	121.9	107.9	94.6	81.4	68.2	113.8	8.1	113.8	113.8	102.4	89.2	76.1	63.0
3500	77	159.5	7.7	76.8	61.6	46.3	-	-	-	152.9	8.6	74.7	59.6	44.5	-	-	-
	72	152.1	7.5	101.2	85.9	70.7	55.5	-	-	143.4	8.4	97.7	82.6	67.5	52.4	-	-
	67	144.8	7.3	125.5	110.3	95.1	79.8	64.6	-	133.8	8.3	120.7	105.6	90.5	75.4	60.4	-
	62	125.5	7.2	125.5	125.4	114.8	99.6	84.3	69.1	117.7	8.2	117.7	117.6	109.5	94.4	79.3	64.2
	57	127.3	7.2	127.3	127.3	119.3	104.0	88.8	73.6	118.7	8.1	118.7	118.7	112.4	97.4	82.3	67.2
4000	77	166.2	7.7	85.3	68.0	50.8	-	-	-	159.2	8.6	82.6	65.6	48.5	-	-	-
	72	158.6	7.5	112.0	94.7	77.5	60.2	-	-	149.2	8.4	107.6	90.6	73.6	56.6	-	-
	67	150.9	7.3	138.7	121.4	104.2	86.9	69.7	-	139.3	8.3	132.7	115.7	98.6	81.6	64.6	-
	62	130.8	7.2	130.8	130.8	125.8	108.5	91.3	74.0	122.5	8.2	122.5	122.5	119.3	102.3	85.2	68.2
	57	132.7	7.2	132.7	132.7	130.7	113.4	96.2	78.9	123.5	8.2	123.5	123.5	122.5	105.5	88.5	71.5
4500	72	159.9	7.5	118.5	100.0	81.5	62.9	-	-	150.4	8.5	114.3	96.0	77.7	59.4	-	-
	67	152.2	7.3	146.0	128.1	109.5	91.0	72.5	-	140.3	8.3	137.0	122.4	104.2	85.9	67.6	-
	62	131.9	7.3	131.9	131.9	129.4	110.8	92.3	73.8	123.4	8.2	123.4	123.4	121.8	103.5	85.2	66.9
	57	133.8	7.3	133.8	133.8	132.8	114.2	95.7	77.2	124.4	8.2	124.4	124.4	123.9	105.6	87.4	69.1
5000	72	161.2	7.6	125.1	105.3	85.5	65.6	-	-	151.5	8.5	120.9	101.4	81.8	62.3	-	-
	67	153.4	7.4	153.4	134.7	114.9	95.1	75.3	-	141.4	8.4	141.4	129.2	109.7	90.2	70.6	-
	62	133.0	7.4	133.0	133.0	133.0	113.1	93.3	73.5	124.3	8.3	124.3	124.3	124.3	104.7	85.2	65.7
	57	134.9	7.3	134.9	134.9	134.9	115.0	95.2	75.4	125.3	8.2	125.3	125.3	125.3	105.8	86.3	66.7
		95°F								**105°F**							
2500	77	134.9	9.3	58.1	46.9	35.7	-	-	-	124.8	10.5	50.8	42.5	31.6	-	-	-
	72	124.1	9.2	76.1	64.9	53.7	42.5	-	-	114.8	10.4	71.4	60.4	49.5	38.6	-	-
	67	113.3	9.1	94.2	83.0	71.8	60.6	49.3	-	104.7	10.3	91.9	78.4	67.4	56.5	45.6	-
	62	101.3	9.0	101.3	101.3	86.9	75.7	64.5	53.3	94.7	10.1	94.7	94.7	80.1	69.1	58.2	47.3
3000	77	140.7	9.4	65.3	52.3	39.2	-	-	-	129.8	10.5	60.5	47.7	34.9	-	-	-
	72	129.4	9.3	85.2	72.1	59.0	46.0	-	-	119.3	10.4	80.3	67.5	54.7	41.9	-	-
	67	118.1	9.2	105.0	91.9	78.9	65.8	52.7	-	108.9	10.3	100.1	87.3	74.5	61.7	48.9	-
	62	105.6	9.1	105.6	105.6	95.6	82.5	69.4	56.3	98.4	10.1	98.4	98.4	88.5	75.7	62.8	50.0
	57	105.7	9.0	105.7	105.7	96.9	83.8	70.7	57.7	96.9	10.3	96.9	96.9	87.7	74.8	62.0	49.2
3500	77	146.4	9.4	72.6	57.7	42.7	-	-	-	134.8	10.6	70.2	52.9	38.2	-	-	-
	72	134.6	9.3	94.2	79.3	64.4	49.4	-	-	123.9	10.5	89.3	74.6	59.9	45.2	-	-
	67	122.9	9.3	115.9	100.9	86.0	71.1	56.1	-	113.0	10.4	108.4	96.3	81.6	66.9	52.2	-
	62	109.9	9.1	109.9	109.9	104.2	89.2	74.3	59.4	102.2	10.2	102.2	102.2	96.9	82.2	67.5	52.8
	57	110.1	9.1	110.1	110.1	105.6	90.7	75.8	60.8	100.6	10.3	100.6	100.6	96.0	81.3	66.6	51.9
4000	77	152.1	9.5	79.8	63.1	46.3	-	-	-	139.7	10.7	79.9	58.1	41.5	-	-	-
	72	139.9	9.4	103.3	86.5	69.7	52.9	-	-	128.5	10.5	98.3	81.7	65.1	48.5	-	-
	67	127.7	9.3	126.7	109.9	93.1	76.3	59.5	-	117.2	10.4	116.7	105.3	88.7	72.1	55.5	-
	62	114.2	9.2	114.2	114.2	112.8	96.0	79.2	62.4	106.0	10.3	106.0	106.0	105.3	88.7	72.1	55.5
	57	114.4	9.1	114.4	114.4	114.4	97.6	80.8	64.0	104.3	10.4	104.3	104.3	104.3	87.7	71.1	54.5
4500	72	140.8	9.4	110.0	92.0	73.9	55.9	-	-	128.8	10.5	104.6	86.8	69.1	51.3	-	-
	67	128.5	9.3	128.0	116.8	98.8	80.8	62.7	-	117.5	10.4	117.2	110.1	94.1	76.4	58.6	-
	62	114.9	9.2	114.9	114.9	114.2	96.2	78.1	60.1	106.2	10.3	106.2	106.2	105.9	88.1	70.4	52.6
	57	115.1	9.1	115.1	115.1	115.1	97.1	79.0	61.0	104.6	10.4	104.6	104.6	104.6	86.8	69.0	51.3
5000	72	141.7	9.4	116.7	97.5	78.2	58.9	-	-	129.1	10.6	110.9	92.0	73.1	54.1	-	-
	67	129.3	9.3	129.3	123.8	104.5	85.2	66.0	-	117.8	10.4	117.8	115.0	99.6	80.6	61.7	-
	62	115.6	9.2	115.6	115.6	115.6	96.3	77.1	57.8	106.5	10.3	106.5	106.5	106.5	87.6	68.6	49.7
	57	115.8	9.1	115.8	115.8	115.8	96.5	77.3	58.0	104.8	10.4	104.8	104.8	104.8	85.9	67.0	48.0

ZR120 (10 Ton) Cooling (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
2500	77	114.7	11.7	43.6	38.1	27.5	-	-	-	104.7	12.9	36.1	33.8	23.4	-	-	-
	72	105.4	11.5	66.6	55.9	45.3	34.6	-	-	96.1	12.7	61.8	51.4	41.1	30.7	-	-
	67	96.1	11.4	89.6	73.7	63.1	52.4	41.8	-	87.5	12.5	87.5	69.1	58.7	48.4	38.0	-
	62	88.1	11.2	88.1	88.1	73.2	62.5	51.9	41.2	81.5	12.3	81.5	81.5	66.3	55.9	45.6	35.2
3000	77	118.9	11.7	55.7	43.1	30.6	-	-	-	108.1	12.9	50.9	38.6	26.2	-	-	-
	72	109.3	11.6	75.5	62.9	50.3	37.8	-	-	99.2	12.7	70.6	58.3	46.0	33.7	-	-
	67	99.6	11.4	95.3	82.7	70.1	57.6	45.0	-	90.4	12.6	90.4	78.1	65.8	53.4	41.1	-
	62	91.3	11.2	91.3	91.3	81.4	68.8	56.3	43.7	84.2	12.3	84.2	84.2	74.3	62.0	49.7	37.3
	57	88.0	11.5	88.0	88.0	78.4	65.9	53.3	40.7	79.2	12.8	79.2	79.2	69.2	56.9	44.6	32.2
3500	77	123.1	11.8	67.8	48.1	33.6	-	-	-	111.5	13.0	65.7	43.4	29.1	-	-	-
	72	113.1	11.6	84.4	69.9	55.4	40.9	-	-	102.4	12.8	79.5	65.2	50.9	36.7	-	-
	67	103.1	11.5	101.0	91.7	77.2	62.7	48.2	-	93.3	12.6	93.3	87.1	72.8	58.5	44.3	-
	62	94.6	11.3	94.6	94.6	89.6	75.1	60.6	46.1	86.9	12.4	86.9	86.9	82.3	68.0	53.8	39.5
	57	91.1	11.6	91.1	91.1	86.3	71.8	57.4	42.9	81.7	12.8	81.7	81.7	76.7	62.4	48.2	33.9
4000	77	127.3	11.8	79.9	53.1	36.7	-	-	-	114.9	13.0	80.5	48.2	31.9	-	-	-
	72	117.0	11.7	93.3	76.9	60.5	44.1	-	-	105.5	12.8	88.3	72.1	55.9	39.7	-	-
	67	106.7	11.5	106.7	100.7	84.3	67.9	51.5	-	96.1	12.6	96.1	96.0	79.8	63.6	47.4	-
	62	97.8	11.3	97.8	97.8	97.8	81.4	65.0	48.6	89.6	12.4	89.6	89.6	89.6	74.1	57.9	41.6
	57	94.2	11.6	94.2	94.2	94.2	77.8	61.4	45.0	84.2	12.9	84.2	84.2	84.2	68.0	51.7	35.5
4500	72	116.8	11.7	99.2	81.7	64.2	46.7	-	-	104.7	12.8	93.8	76.6	59.4	42.1	-	-
	67	106.4	11.5	106.4	103.4	89.5	72.0	54.5	-	95.4	12.7	95.4	95.4	84.8	67.5	50.3	-
	62	97.6	11.3	97.6	97.6	97.6	80.1	62.6	45.1	88.9	12.4	88.9	88.9	88.9	72.0	54.8	37.6
	57	94.0	11.6	94.0	94.0	94.0	76.5	59.0	41.5	83.5	12.9	83.5	83.5	83.5	66.3	49.0	31.8
5000	72	116.5	11.7	105.2	86.6	68.0	49.4	-	-	104.0	12.8	99.4	81.1	62.8	44.6	-	-
	67	106.2	11.5	106.2	106.2	94.7	76.1	57.5	-	94.7	12.7	94.7	94.7	89.7	71.5	53.2	-
	62	97.4	11.3	97.4	97.4	97.4	78.8	60.2	41.6	88.3	12.4	88.3	88.3	88.3	70.0	51.7	33.5
	57	93.9	11.6	93.9	93.9	93.9	75.3	56.7	38.1	82.9	12.9	82.9	82.9	82.9	64.6	46.3	28.1

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR120 (10 Ton) Reheat

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F) 85	80	75	70	65	Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F) 85	80	75	70	65
		35°F							**45°F**						
2500	72	68.3	5.0	7.6	5.1	2.5	-	-	69.9	6.2	1.6	-0.1	-1.9	-	-
	67	71.7	4.7	21.5	19.0	16.5	14.0	-	67.4	5.9	15.4	13.6	11.8	10.1	-
	62	62.7	5.1	25.5	23.0	20.5	17.9	15.4	62.2	5.9	28.1	26.3	24.6	22.8	21.0
3000	72	71.8	5.2	9.4	6.3	3.1	-	-	72.9	6.2	2.1	-0.2	-2.5	-	-
	67	75.3	4.9	28.0	24.8	21.6	18.5	-	70.2	5.9	19.9	17.6	15.3	13.0	-
	62	65.9	5.2	34.1	30.9	27.7	24.6	21.4	64.8	5.9	36.3	34.0	31.7	29.4	27.1
	57	65.7	5.0	52.1	48.9	45.7	42.6	39.4	63.6	5.7	49.7	47.4	45.1	42.8	40.5
3500	72	75.3	5.4	11.3	7.5	3.7	-	-	75.9	6.1	2.6	-0.2	-3.0	-	-
	67	78.9	5.1	34.5	30.7	26.8	23.0	-	73.1	5.9	24.3	21.5	18.7	15.9	-
	62	69.1	5.4	42.7	38.9	35.0	31.2	27.4	67.5	5.9	44.4	41.6	38.8	35.9	33.1
	57	68.9	5.2	62.1	61.1	57.3	53.5	49.7	66.1	5.7	59.2	58.1	55.3	52.4	49.6
4000	72	78.9	5.6	13.2	8.7	4.3	-	-	78.8	6.1	3.1	-0.2	-3.6	-	-
	67	82.5	5.3	41.0	36.5	32.0	27.5	-	75.9	5.9	28.8	25.4	22.1	18.8	-
	62	72.4	5.6	51.3	46.8	42.3	37.8	33.3	70.1	5.9	52.5	49.2	45.9	42.5	39.2
	57	72.1	5.4	72.1	72.1	68.9	64.4	59.9	68.7	5.7	68.7	68.7	65.4	62.0	58.7
4500	72	76.8	5.6	17.2	12.8	8.4	-	-	79.6	6.1	3.5	-0.3	-4.0	-	-
	67	80.8	5.3	40.7	36.3	31.9	27.5	-	76.7	5.9	32.3	28.5	24.8	21.0	-
	62	70.6	5.6	53.9	47.4	43.0	38.6	34.2	70.8	5.9	59.0	55.2	51.4	47.6	43.9
	57	70.4	5.4	70.4	70.4	66.6	62.2	57.8	69.4	5.7	69.4	69.4	65.7	61.9	58.1
5000	72	74.7	5.6	21.2	16.9	12.5	-	-	80.4	6.1	3.9	-0.3	-4.5	-	-
	67	79.0	5.3	40.4	36.0	31.7	27.4	-	77.5	5.9	35.8	31.6	27.4	23.2	-
	62	68.8	5.6	56.5	48.1	43.8	39.4	35.1	71.5	5.9	65.4	61.2	57.0	52.7	48.5
	57	68.7	5.4	68.7	68.7	64.4	60.1	55.7	70.1	5.7	70.1	70.1	65.9	61.7	57.5
		55°F							**65°F**						
2500	72	71.6	7.3	-4.3	-5.3	-6.3	-	-	65.4	7.9	-1.8	-2.3	-2.7	-	-
	67	63.1	7.2	9.3	8.3	7.2	6.2	-	58.4	7.6	4.2	3.8	3.4	2.9	-
	62	61.7	6.8	30.8	29.7	28.7	27.6	26.6	55.4	7.2	14.3	13.9	13.4	13.0	12.5
3000	72	74.0	7.1	-5.2	-6.6	-8.0	-	-	68.3	7.6	-4.8	-5.9	-6.9	-	-
	67	65.2	6.9	11.7	10.3	8.9	7.5	-	61.0	7.3	8.6	7.5	6.5	5.4	-
	62	63.7	6.6	38.4	37.0	35.6	34.2	32.7	57.8	7.0	26.5	25.5	24.4	23.4	22.3
	57	61.5	6.4	47.4	46.0	44.5	43.1	41.7	56.2	6.8	32.4	31.4	30.3	29.2	28.2
3500	72	76.4	6.9	-6.1	-7.9	-9.7	-	-	71.2	7.4	-7.8	-9.5	-11.1	-	-
	67	67.3	6.7	14.1	12.3	10.5	8.7	-	63.7	7.1	13.0	11.3	9.6	7.9	-
	62	65.8	6.4	46.1	44.3	42.5	40.7	38.9	60.3	6.8	38.8	37.1	35.5	33.8	32.1
	57	63.4	6.2	56.4	55.0	53.2	51.4	49.6	58.5	6.6	46.7	45.5	43.8	42.1	40.4
4000	72	78.7	6.7	-7.0	-9.2	-11.4	-	-	74.1	7.1	-10.7	-13.0	-	-	-
	67	69.4	6.5	16.6	14.4	12.2	10.0	-	66.3	6.9	17.3	15.0	12.7	10.4	-
	62	67.8	6.2	53.8	51.6	49.4	47.2	45.0	62.7	6.5	51.1	48.8	46.5	44.2	41.9
	57	65.4	6.0	65.4	64.1	61.9	59.7	57.5	60.9	6.4	60.9	59.6	57.3	55.0	52.7
4500	72	82.5	6.7	-10.2	-13.3	-	-	-	76.5	7.1	-	-	-	-	-
	67	72.7	6.5	23.9	20.8	17.6	14.5	-	68.5	6.9	22.9	19.9	16.8	13.8	-
	62	71.0	6.2	64.0	62.9	59.8	56.6	53.5	64.9	6.5	59.0	57.9	54.8	51.8	48.7
	57	68.5	6.0	68.5	67.8	64.7	61.5	58.4	63.0	6.4	63.0	62.3	59.3	56.2	53.2
5000	72	86.2	6.6	-	-	-	-	-	79.0	7.1	-	-	-	-	-
	67	76.0	6.5	31.3	27.2	23.1	19.0	-	70.7	6.9	28.5	24.7	20.9	17.1	-
	62	74.2	6.2	74.2	74.2	70.1	66.0	62.0	67.0	6.5	67.0	67.0	63.2	59.4	55.6
	57	71.6	6.0	71.6	71.6	67.5	63.4	59.3	65.0	6.4	65.0	65.0	61.2	57.4	53.6

ZR120 (10 Ton) Reheat (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)				
CFM	WB (°F)			85	80	75	70	65			85	80	75	70	65
		75°F							**85°F**						
2500	72	59.1	8.4	0.6	0.7	0.9	-	-	52.8	8.9	3.0	3.8	4.5	-	-
	67	53.8	8.0	-0.9	-0.7	-0.5	-0.4	-	49.1	8.4	-6.0	-5.2	-4.4	-3.6	-
	62	49.1	7.6	-2.2	-2.0	-1.9	-1.7	-1.5	42.8	8.0	-	-	-	-	-
3000	72	62.5	8.1	-4.4	-5.1	-5.8	-	-	56.8	8.6	-4.1	-4.4	-4.7	-	-
	67	56.9	7.7	5.5	4.8	4.1	3.4	-	52.7	8.1	2.3	2.0	1.7	1.4	-
	62	52.0	7.4	14.7	14.0	13.3	12.6	11.9	46.1	7.8	2.8	2.4	2.1	1.8	1.5
	57	50.9	7.3	17.4	16.8	16.1	15.4	14.7	45.6	7.7	2.5	2.1	1.8	1.5	1.2
3500	72	65.9	7.9	-9.4	-11.0	-12.5	-	-	60.7	8.4	-11.1	-12.5	-	-	-
	67	60.0	7.5	11.8	10.2	8.7	7.1	-	56.4	7.9	10.6	9.2	7.8	6.4	-
	62	54.8	7.1	31.5	30.0	28.4	26.9	25.3	49.3	7.5	24.2	22.8	21.4	19.9	18.5
	57	53.7	7.0	37.0	35.9	34.4	32.8	31.3	48.8	7.5	27.2	26.4	25.0	23.6	22.1
4000	72	69.4	7.6	-	-	-	-	-	64.7	8.1	-	-	-	-	-
	67	63.1	7.2	18.1	15.7	13.3	10.9	-	60.0	7.6	18.9	16.4	13.9	11.4	-
	62	57.7	6.9	48.4	46.0	43.5	41.1	38.7	52.6	7.3	45.6	43.1	40.6	38.1	35.6
	57	56.5	6.8	56.5	55.1	52.7	50.3	47.9	52.0	7.2	52.0	50.6	48.1	45.6	43.1
4500	72	70.6	7.6	-	-	-	-	-	64.7	8.1	-	-	-	-	-
	67	64.3	7.2	21.9	19.0	16.0	13.0	-	60.0	7.6	20.9	18.1	15.2	12.3	-
	62	58.7	6.9	54.0	52.8	49.9	46.9	43.9	52.5	7.3	49.1	47.8	44.9	42.1	39.2
	57	57.5	6.8	57.5	56.8	53.8	50.9	47.9	52.0	7.2	52.0	51.3	48.4	45.6	42.7
5000	72	71.9	7.6	-	-	-	-	-	64.7	8.1	-	-	-	-	-
	67	65.4	7.2	25.8	22.2	18.7	15.2	-	60.1	7.6	23.0	19.8	16.5	13.3	-
	62	59.7	6.9	59.7	59.7	56.2	52.7	49.2	52.5	7.3	52.5	52.5	49.2	46.0	42.8
	57	58.5	6.8	58.5	58.5	55.0	51.5	47.9	52.0	7.2	52.0	52.0	48.7	45.5	42.3

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR150 (12.5 Ton) Cooling

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
3125	77	190.5	9.0	87.6	73.4	59.1	-	-	-	185.2	10.5	81.6	67.3	53.0	-	-	-
	72	180.7	9.2	111.5	97.2	83.0	68.8	-	-	172.9	10.5	105.4	91.1	76.8	62.5	-	-
	67	171.0	9.3	135.4	121.1	106.9	92.7	78.4	-	160.6	10.5	129.2	114.9	100.6	86.3	72.0	-
	62	158.6	9.1	158.6	158.6	158.6	150.5	136.2	122.0	148.0	10.3	148.0	148.0	139.6	125.3	111.1	96.8
3750	77	199.8	9.2	94.7	78.6	62.4	-	-	-	194.0	10.6	89.0	72.9	56.8	-	-	-
	72	189.6	9.3	119.8	103.7	87.5	71.3	-	-	181.1	10.6	114.4	98.3	82.2	66.1	-	-
	67	179.4	9.4	145.0	128.8	112.6	96.4	80.3	-	168.3	10.6	139.9	123.8	107.7	91.6	75.5	-
	62	166.3	9.2	166.3	166.3	166.3	157.9	141.8	125.6	155.1	10.4	155.1	155.1	149.5	133.4	117.3	101.2
	57	154.4	9.2	154.4	154.4	148.9	132.7	116.6	100.4	146.9	10.4	146.9	146.9	137.3	121.2	105.2	89.1
4375	77	209.1	9.3	101.9	83.8	65.7	-	-	-	202.8	10.7	96.3	78.4	60.5	-	-	-
	72	198.4	9.4	128.2	110.1	92.0	73.9	-	-	189.3	10.7	123.4	105.5	87.6	69.7	-	-
	67	187.7	9.6	154.5	136.4	118.3	100.2	82.1	-	175.9	10.7	150.6	132.7	114.8	96.9	79.0	-
	62	174.1	9.4	174.1	174.1	174.1	165.4	147.3	129.2	162.1	10.5	162.1	162.1	159.3	141.4	123.5	105.6
	57	161.6	9.3	161.6	161.6	156.6	138.5	120.4	102.3	153.5	10.5	153.5	153.5	146.4	128.5	110.6	92.7
5000	77	218.4	9.4	109.0	89.0	68.9	-	-	-	211.6	10.8	103.6	83.9	64.2	-	-	-
	72	207.3	9.6	136.6	116.5	96.5	76.5	-	-	197.5	10.8	132.4	112.7	93.0	73.3	-	-
	67	196.1	9.7	164.1	144.1	124.1	104.0	84.0	-	183.5	10.8	161.2	141.5	121.8	102.1	82.4	-
	62	181.8	9.5	181.8	181.8	181.8	172.9	152.9	132.8	169.1	10.6	169.1	169.1	169.1	149.4	129.7	110.0
	57	168.8	9.5	168.8	168.8	164.4	144.3	124.3	104.2	160.2	10.6	160.2	160.2	155.4	135.7	116.0	96.3
5625	72	211.2	9.6	148.0	126.6	105.3	83.9	-	-	202.2	10.8	143.3	122.0	100.8	79.5	-	-
	67	199.9	9.7	179.4	156.7	135.4	114.0	92.7	-	187.8	10.8	174.5	153.2	131.9	110.7	89.4	-
	62	185.3	9.5	185.3	185.3	185.3	169.5	148.2	126.8	173.1	10.6	173.1	173.1	173.1	151.9	130.6	109.3
	57	172.0	9.5	172.0	172.0	169.8	148.5	127.1	105.8	164.0	10.6	164.0	164.0	161.6	140.3	119.1	97.8
6250	72	215.2	9.5	159.4	136.7	114.0	91.4	-	-	206.9	10.8	154.1	131.3	108.5	85.6	-	-
	67	203.6	9.7	194.6	169.4	146.7	124.0	101.4	-	192.2	10.8	187.7	164.9	142.0	119.2	96.4	-
	62	188.8	9.5	188.8	188.8	188.8	166.2	143.5	120.9	177.1	10.6	177.1	177.1	177.1	154.3	131.5	108.6
	57	175.3	9.4	175.3	175.3	175.3	152.6	130.0	107.3	167.8	10.6	167.8	167.8	167.8	145.0	122.1	99.3
		95°F								**105°F**							
3125	77	180.0	11.9	75.6	61.3	46.9	-	-	-	168.2	13.3	71.8	58.0	43.9	-	-	-
	72	165.1	11.8	99.3	85.0	70.6	56.3	-	-	153.8	13.2	95.1	81.0	66.9	52.8	-	-
	67	150.2	11.7	123.0	108.6	94.3	80.0	65.6	-	139.5	13.0	118.4	103.9	89.8	75.7	61.6	-
	62	137.5	11.5	137.5	133.0	114.6	100.2	85.9	71.5	127.9	12.9	127.9	125.7	110.1	96.0	81.9	67.8
3750	77	188.2	12.0	83.2	67.2	51.2	-	-	-	175.5	13.3	79.5	63.7	47.8	-	-	-
	72	172.7	11.9	109.0	93.0	77.0	60.9	-	-	160.6	13.2	104.5	88.6	72.8	56.9	-	-
	67	157.1	11.7	134.8	118.8	102.8	86.7	70.7	-	145.6	13.1	129.4	113.6	97.7	81.9	66.0	-
	62	143.8	11.6	143.8	140.8	124.8	108.8	92.8	76.8	133.5	12.9	133.5	132.1	119.8	104.0	88.1	72.2
	57	139.4	11.6	139.4	139.4	125.8	109.8	93.8	77.7	130.3	13.0	130.3	130.3	117.1	101.2	85.4	69.5
4375	77	196.5	12.0	90.7	73.0	55.4	-	-	-	182.9	13.4	87.3	69.3	51.7	-	-	-
	72	180.3	11.9	118.6	101.0	83.3	65.6	-	-	167.3	13.3	113.9	96.3	78.7	61.0	-	-
	67	164.0	11.8	146.6	128.9	111.2	93.5	75.8	-	151.8	13.1	140.5	123.3	105.6	88.0	70.4	-
	62	150.1	11.6	150.1	148.6	135.1	117.4	99.7	82.0	139.2	13.0	139.2	138.4	129.5	111.9	94.3	76.6
	57	145.5	11.7	145.5	145.5	136.1	118.4	100.7	83.1	135.7	13.0	135.7	135.7	126.6	109.0	91.3	73.7
5000	77	204.8	12.1	98.3	78.9	59.6	-	-	-	190.3	13.4	95.1	75.0	55.6	-	-	-
	72	187.8	12.0	128.3	109.0	89.6	70.2	-	-	174.1	13.3	123.3	104.0	84.6	65.2	-	-
	67	170.9	11.9	158.4	139.0	119.6	100.3	80.9	-	157.9	13.2	151.6	132.9	113.6	94.2	74.8	-
	62	156.4	11.7	156.4	156.4	145.3	126.0	106.6	87.2	144.8	13.0	144.8	144.8	139.2	119.8	100.4	81.1
	57	151.6	11.7	151.6	151.6	146.4	127.1	107.7	88.4	141.2	13.1	141.2	141.2	136.1	116.7	97.3	77.9
5625	72	193.2	12.0	138.6	117.4	96.2	75.1	-	-	178.5	13.3	133.3	112.3	91.2	70.2	-	-
	67	175.8	11.9	169.6	149.7	128.5	107.3	86.1	-	161.8	13.2	158.7	143.5	122.5	101.5	80.4	-
	62	160.9	11.7	160.9	160.9	155.4	134.2	113.0	91.8	148.4	13.0	148.4	148.4	145.6	124.6	103.5	82.5
	57	156.0	11.7	156.0	156.0	153.4	132.2	111.0	89.8	144.7	13.1	144.7	144.7	142.2	121.1	100.1	79.1
6250	72	198.6	12.0	148.9	125.9	102.9	79.9	-	-	182.8	13.3	143.3	120.6	97.9	75.2	-	-
	67	180.7	11.9	180.7	160.4	137.4	114.4	91.4	-	165.8	13.2	165.8	154.1	131.4	108.7	86.1	-
	62	165.4	11.7	165.4	165.4	165.4	142.4	119.4	96.4	152.0	13.0	152.0	152.0	152.0	129.3	106.6	84.0
	57	160.3	11.8	160.3	160.3	160.3	137.3	114.3	91.3	148.3	13.1	148.3	148.3	148.3	125.6	102.9	80.2

ZR150 (12.5 Ton) Cooling (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
3125	77	156.3	14.6	67.9	54.8	40.9	-	-	-	144.5	16.0	60.9	51.5	37.9	-	-	-
	72	142.6	14.5	90.8	77.0	63.1	49.3	-	-	131.3	15.9	86.6	73.0	59.4	45.8	-	-
	67	128.8	14.4	113.7	99.1	85.3	71.5	57.6	-	118.1	15.7	110.3	94.4	80.8	67.2	53.6	-
	62	118.4	14.2	118.4	118.4	105.7	91.8	78.0	64.1	108.8	15.6	108.8	108.8	102.4	87.6	74.0	60.4
3750	77	162.8	14.7	75.9	60.2	44.5	-	-	-	150.2	16.0	72.3	56.7	41.2	-	-	-
	72	148.5	14.6	100.0	84.3	68.6	52.9	-	-	136.4	15.9	95.5	80.0	64.4	48.9	-	-
	67	134.1	14.4	124.1	108.4	92.7	77.0	61.3	-	122.7	15.8	118.8	103.2	87.7	72.1	56.6	-
	62	123.3	14.3	123.3	123.3	114.8	99.1	83.4	67.7	113.0	15.6	113.0	113.0	109.8	94.3	78.7	63.2
	57	121.1	14.3	121.1	121.1	108.4	92.7	77.0	61.3	112.0	15.7	112.0	112.0	99.7	84.2	68.6	53.1
4375	77	169.3	14.7	83.9	65.6	48.0	-	-	-	155.8	16.1	83.6	61.9	44.4	-	-	-
	72	154.4	14.6	109.2	91.6	74.1	56.5	-	-	141.5	16.0	104.5	87.0	69.5	52.0	-	-
	67	139.5	14.5	134.5	117.6	100.1	82.5	65.0	-	127.2	15.8	127.2	112.0	94.5	77.0	59.5	-
	62	128.2	14.3	128.2	128.2	124.0	106.4	88.8	71.3	117.3	15.7	117.3	117.3	117.3	100.9	83.4	65.9
	57	126.0	14.4	126.0	126.0	117.1	99.5	81.9	64.4	116.2	15.7	116.2	116.2	107.5	90.0	72.6	55.1
5000	77	175.8	14.8	91.9	71.0	51.6	-	-	-	161.4	16.2	95.0	67.0	47.6	-	-	-
	72	160.3	14.7	118.4	98.9	79.5	60.1	-	-	146.6	16.0	113.4	93.9	74.5	55.1	-	-
	67	144.9	14.5	144.9	126.9	107.5	88.1	68.6	-	131.8	15.9	131.8	120.8	101.4	82.0	62.5	-
	62	133.1	14.4	133.1	133.1	133.1	113.7	94.3	74.9	121.5	15.7	121.5	121.5	121.5	107.6	88.1	68.7
	57	130.8	14.4	130.8	130.8	125.7	106.3	86.9	67.5	120.4	15.8	120.4	120.4	115.4	95.9	76.5	57.0
5625	72	163.7	14.7	128.0	107.1	86.2	65.3	-	-	148.9	16.0	122.7	102.0	81.2	60.4	-	-
	67	147.9	14.5	147.9	137.4	116.5	95.6	74.7	-	133.9	15.9	133.9	131.3	110.5	89.7	69.0	-
	62	135.9	14.4	135.9	135.9	135.9	115.0	94.1	73.2	123.4	15.7	123.4	123.4	123.4	105.4	84.6	63.9
	57	133.5	14.4	133.5	133.5	131.0	110.1	89.2	68.3	122.3	15.8	122.3	122.3	119.8	99.0	78.3	57.5
6250	72	167.0	14.7	137.7	115.3	92.9	70.5	-	-	151.2	16.0	132.0	110.0	87.9	65.8	-	-
	67	150.9	14.5	150.9	147.9	125.5	103.1	80.7	-	135.9	15.8	135.9	135.9	119.6	97.5	75.4	-
	62	138.6	14.4	138.6	138.6	138.6	116.3	93.9	71.5	125.3	15.7	125.3	125.3	125.3	103.2	81.1	59.0
	57	136.2	14.4	136.2	136.2	136.2	113.9	91.5	69.1	124.2	15.7	124.2	124.2	124.2	102.1	80.0	58.0

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

ZR150 (12.5 Ton) Reheat

Air on Evaporator Coil		Temperature of Air on Condenser Coil														
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F) 85	80	75	70	65	Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F) 85	80	75	70	65
		35°F							**45°F**						
3125	72	87.0	7.7	6.6	4.8	3.1	-	-	85.9	8.3	5.6	3.9	2.2	-	-
	67	84.6	7.3	14.4	12.7	11.0	9.2	-	83.3	8.0	11.8	10.1	8.4	6.7	-
	62	82.9	7.3	20.3	18.6	16.9	15.2	13.5	80.8	7.7	17.7	16.0	14.3	12.6	10.9
3750	72	89.0	7.4	11.5	9.2	6.9	-	-	88.9	8.0	10.7	8.3	5.9	-	-
	67	86.5	7.1	26.3	24.0	21.7	19.5	-	86.2	7.7	24.1	21.7	19.3	17.0	-
	62	84.8	7.1	36.7	34.4	32.1	29.8	27.5	83.6	7.4	36.6	34.2	31.9	29.5	27.1
	57	82.2	7.7	43.1	40.9	38.6	36.3	34.0	79.1	8.2	40.8	38.4	36.0	33.7	31.3
4375	72	90.9	7.2	16.4	13.5	10.7	-	-	91.8	7.7	15.8	12.7	9.7	-	-
	67	88.4	6.9	38.3	35.4	32.5	29.7	-	89.1	7.4	36.3	33.3	30.2	27.2	-
	62	86.6	6.8	53.1	50.2	47.4	44.5	41.6	86.4	7.2	55.5	52.5	49.4	46.4	43.3
	57	84.0	7.4	63.2	60.0	57.1	54.2	51.4	81.8	7.9	61.9	58.9	55.8	52.8	49.7
5000	72	92.8	6.9	21.3	17.9	14.4	-	-	94.8	7.4	20.9	17.2	13.4	-	-
	67	90.3	6.6	50.2	46.8	43.3	39.9	-	91.9	7.1	48.6	44.9	41.1	37.4	-
	62	88.5	6.6	69.5	66.0	62.6	59.1	55.7	89.2	6.9	74.5	70.7	67.0	63.3	59.5
	57	85.9	7.1	83.2	79.1	75.6	72.2	68.7	84.4	7.6	83.1	79.4	75.6	71.9	68.2
5625	72	94.1	7.5	15.2	12.5	9.9	-	-	96.7	7.8	16.3	13.1	9.9	-	-
	67	91.5	7.1	35.5	32.8	30.2	27.5	-	93.8	7.6	37.4	34.2	31.0	27.8	-
	62	89.7	7.1	48.0	45.4	42.7	40.1	37.4	91.0	7.3	57.1	53.9	50.7	47.5	44.3
	57	87.1	7.7	58.0	55.0	52.4	49.7	47.1	86.1	8.0	63.7	60.5	57.3	54.1	50.8
6250	72	95.4	8.0	9.1	7.2	5.4	-	-	98.6	8.3	11.7	9.0	6.3	-	-
	67	92.8	7.7	20.7	18.9	17.0	15.2	-	95.6	8.0	26.2	23.5	20.8	18.1	-
	62	91.0	7.6	26.6	24.7	22.9	21.0	19.2	92.8	7.8	39.8	37.1	34.4	31.7	29.0
	57	88.3	8.3	32.9	31.0	29.2	27.3	25.5	87.8	8.5	44.3	41.6	38.9	36.2	33.5
		55°F							**65°F**						
3125	72	84.8	8.9	4.6	2.9	1.2	-	-	84.2	9.3	8.1	6.6	5.1	-	-
	67	81.9	8.7	9.3	7.6	5.9	4.2	-	79.1	8.9	10.4	8.9	7.3	5.8	-
	62	78.7	8.2	15.1	13.4	11.7	10.0	8.3	74.6	8.4	24.9	23.4	21.8	20.3	18.7
3750	72	88.8	8.6	9.9	7.4	5.0	-	-	87.3	9.2	12.3	10.1	8.0	-	-
	67	85.8	8.3	21.9	19.4	16.9	14.5	-	82.0	8.8	18.2	16.0	13.9	11.8	-
	62	82.5	7.8	36.5	34.1	31.6	29.1	26.7	77.4	8.3	40.0	37.9	35.8	33.7	31.5
	57	76.1	8.7	38.4	36.0	33.5	31.0	28.6	72.6	9.0	44.1	42.0	39.9	37.8	35.6
4375	72	92.8	8.2	15.2	11.9	8.7	-	-	90.4	9.1	16.4	13.7	11.0	-	-
	67	89.7	8.0	34.4	31.2	27.9	24.7	-	85.0	8.7	25.9	23.2	20.5	17.8	-
	62	86.2	7.5	58.0	54.7	51.5	48.3	45.0	80.2	8.2	55.1	52.4	49.8	47.1	44.4
	57	79.5	8.3	60.7	57.8	54.6	51.3	48.1	75.2	8.9	60.3	57.7	55.1	52.4	49.7
5000	72	96.8	7.8	20.5	16.5	12.4	-	-	93.5	9.0	20.5	17.2	14.0	-	-
	67	93.6	7.6	47.0	42.9	38.9	34.9	-	87.9	8.6	33.6	30.4	27.1	23.8	-
	62	89.9	7.1	79.4	75.4	71.4	67.4	63.4	83.0	8.1	70.3	67.0	63.7	60.4	57.2
	57	83.0	8.0	83.0	79.6	75.6	71.6	67.6	77.8	8.8	76.4	73.5	70.2	66.9	63.7
5625	72	99.3	8.2	17.4	13.6	9.8	-	-	97.7	9.2	20.9	17.5	14.2	-	-
	67	96.0	8.0	39.3	35.5	31.8	28.0	-	91.8	8.8	31.7	28.3	25.0	21.6	-
	62	92.2	7.5	66.2	62.4	58.7	54.9	51.1	86.6	8.3	69.4	66.0	62.6	59.3	55.9
	57	85.1	8.4	69.3	65.9	62.1	58.4	54.6	81.2	9.0	72.7	70.3	66.9	63.6	60.2
6250	72	101.8	8.6	14.3	10.8	7.3	-	-	101.9	9.5	21.3	17.8	14.3	-	-
	67	98.4	8.4	31.7	28.1	24.6	21.1	-	95.7	9.1	29.8	26.3	22.8	19.4	-
	62	94.6	7.9	53.0	49.4	45.9	42.4	38.8	90.3	8.6	68.5	65.0	61.6	58.1	54.6
	57	87.2	8.8	55.7	52.2	48.7	45.1	41.6	84.7	9.3	68.9	67.1	63.7	60.2	56.8

ZR150 (12.5 Ton) Reheat (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil													
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)					Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh) Return Dry Bulb (°F)				
CFM	WB (°F)			85	80	75	70	65			85	80	75	70	65
		75°F							85°F						
3125	72	83.6	9.7	11.7	10.3	8.9	-	-	83.0	10.2	15.2	14.0	12.7	-	-
	67	76.2	9.2	11.5	10.1	8.7	7.3	-	73.4	9.4	12.6	11.4	10.1	8.8	-
	62	70.5	8.7	34.8	33.4	32.0	30.6	29.2	66.4	8.9	44.7	43.4	42.1	40.9	39.6
3750	72	85.8	9.9	14.6	12.9	11.1	-	-	84.3	10.5	17.0	15.6	14.1	-	-
	67	78.2	9.3	14.5	12.7	10.9	9.1	-	74.4	9.7	10.8	9.3	7.9	6.4	-
	62	72.3	8.8	43.6	41.8	40.0	38.2	36.4	67.3	9.3	47.1	45.6	44.2	42.7	41.3
	57	69.0	9.3	49.8	48.1	46.3	44.5	42.7	65.5	9.7	55.5	54.1	52.7	51.2	49.8
4375	72	88.0	10.0	17.6	15.4	13.3	-	-	85.5	10.9	18.8	17.2	15.6	-	-
	67	80.2	9.4	17.4	15.2	13.1	10.9	-	75.5	10.1	8.9	7.2	5.6	4.0	-
	62	74.2	8.9	52.3	50.2	48.0	45.8	43.7	68.2	9.6	49.5	47.9	46.2	44.6	43.0
	57	70.8	9.5	59.9	57.7	55.5	53.4	51.2	66.4	10.0	59.4	57.6	56.0	54.4	52.8
5000	72	90.1	10.1	20.6	18.0	15.5	-	-	86.8	11.3	20.6	18.8	17.0	-	-
	67	82.2	9.5	20.3	17.8	15.2	12.7	-	76.5	10.5	7.0	5.2	3.4	1.6	-
	62	76.0	9.0	61.1	58.5	56.0	53.5	50.9	69.1	10.0	51.9	50.1	48.3	46.5	44.7
	57	72.6	9.6	69.9	67.3	64.8	62.3	59.7	67.4	10.4	63.3	61.2	59.4	57.6	55.8
5625	72	96.1	10.3	24.4	21.4	18.5	-	-	94.4	11.3	27.9	25.3	22.8	-	-
	67	87.6	9.6	24.1	21.1	18.1	15.2	-	83.4	10.5	16.4	13.9	11.3	8.8	-
	62	81.0	9.1	72.5	69.6	66.6	63.7	60.7	75.4	9.9	75.4	73.1	70.6	68.0	65.5
	57	77.3	9.7	76.0	74.7	71.8	68.8	65.8	73.4	10.4	73.4	73.4	73.4	73.4	71.5
6250	72	102.0	10.4	28.2	24.8	21.4	-	-	102.0	11.3	35.2	31.9	28.5	-	-
	67	93.0	9.8	27.8	24.5	21.1	17.7	-	90.3	10.4	25.9	22.6	19.3	16.0	-
	62	86.0	9.2	84.0	80.6	77.2	73.8	70.5	81.7	9.9	81.7	81.7	81.7	81.7	81.7
	57	82.1	9.8	82.1	82.1	78.7	75.3	71.9	79.5	10.3	79.5	79.5	79.5	79.5	79.5

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

XP078-150 Cooling Capacities

XP078 (6.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
1625	77	101.5	4.7	41.0	33.6	26.4	-	-	-	92.9	5.7	39.2	32.1	25.0	-	-	-
	72	92.3	4.8	52.5	45.3	38.2	31.1	-	-	85.1	5.6	50.6	43.5	36.4	29.4	-	-
	67	83.1	4.9	64.0	57.1	50.0	42.9	35.8	-	77.2	5.6	62.0	54.9	47.8	40.8	33.7	-
	62	76.7	4.8	76.7	74.1	60.8	53.6	46.5	39.4	71.0	5.6	71.0	69.6	58.5	51.4	44.4	37.3
1950	77	105.5	4.8	45.8	37.6	29.4	-	-	-	96.8	5.7	44.2	36.0	27.7	-	-	-
	72	95.9	4.8	58.9	50.7	42.5	34.3	-	-	88.6	5.6	56.8	48.6	40.4	32.1	-	-
	67	86.3	4.9	72.0	63.8	55.6	47.4	39.2	-	80.4	5.6	69.4	61.2	53.0	44.8	36.5	-
	62	79.8	4.8	79.8	78.0	67.5	59.3	51.1	42.9	73.9	5.6	73.9	73.0	64.8	56.6	48.4	40.2
	57	78.2	4.8	78.2	78.2	70.1	61.9	53.7	45.5	73.5	5.6	73.5	73.5	66.5	58.3	50.1	41.8
2275	77	109.5	4.8	50.6	41.6	32.3	-	-	-	100.6	5.7	49.2	39.8	30.4	-	-	-
	72	99.6	4.9	65.3	56.0	46.7	37.4	-	-	92.1	5.6	63.0	53.6	44.3	34.9	-	-
	67	89.6	4.9	79.9	70.4	61.1	51.8	42.6	-	83.6	5.6	76.8	67.5	58.1	48.7	39.4	-
	62	82.8	4.8	82.8	81.9	74.3	65.0	55.7	46.5	76.8	5.6	76.8	76.4	71.1	61.7	52.4	43.0
	57	81.2	4.9	81.2	81.2	77.2	67.9	58.6	49.3	76.5	5.6	76.5	76.5	72.9	63.6	54.2	44.8
2600	77	113.6	4.8	55.4	45.6	35.3	-	-	-	104.4	5.6	54.1	43.6	33.1	-	-	-
	72	103.2	4.9	71.7	61.3	51.0	40.6	-	-	95.6	5.6	69.2	58.7	48.2	37.7	-	-
	67	92.9	5.0	87.9	77.0	66.7	56.3	46.0	-	86.8	5.6	84.3	73.8	63.2	52.7	42.2	-
	62	85.8	4.9	85.8	85.8	81.1	70.7	60.3	50.0	79.8	5.6	79.8	79.8	77.4	66.9	56.3	45.8
	57	84.2	4.9	84.2	84.2	84.2	73.8	63.5	53.1	79.4	5.6	79.4	79.4	79.4	68.9	58.4	47.8
2925	72	105.5	4.9	76.3	65.0	53.7	42.5	-	-	97.9	5.6	73.8	62.5	51.1	39.7	-	-
	67	95.0	4.9	92.5	81.6	70.3	59.0	47.8	-	88.8	5.6	87.6	78.4	67.1	55.7	44.3	-
	62	87.7	4.8	87.7	87.7	85.4	74.1	62.8	51.6	81.6	5.6	81.6	81.6	80.4	69.1	57.7	46.3
	57	86.1	4.9	86.1	86.1	86.1	74.8	63.5	52.3	81.3	5.6	81.3	81.3	81.3	69.9	58.5	47.1
3250	72	107.8	4.8	80.9	68.7	56.5	44.3	-	-	100.1	5.6	78.5	66.2	54.0	41.8	-	-
	67	97.0	4.9	97.0	86.1	73.9	61.7	49.6	-	90.9	5.6	90.9	83.1	70.9	58.6	46.4	-
	62	89.7	4.8	89.7	89.7	89.7	77.5	65.3	53.1	83.5	5.6	83.5	83.5	83.5	71.3	59.0	46.8
	57	87.9	4.8	87.9	87.9	87.9	75.7	63.6	51.4	83.1	5.6	83.1	83.1	83.1	70.9	58.7	46.4
		95°F								**105°F**							
1625	77	84.3	6.6	37.4	30.6	23.6	-	-	-	78.5	7.4	33.1	28.6	21.6	-	-	-
	72	77.8	6.5	48.6	41.7	34.7	27.7	-	-	72.1	7.3	46.3	39.4	32.4	25.4	-	-
	67	71.3	6.4	59.9	52.7	45.7	38.7	31.7	-	65.7	7.2	59.6	50.2	43.2	36.2	29.2	-
	62	65.2	6.4	65.2	65.2	56.2	49.2	42.3	35.3	59.9	7.2	59.9	59.9	50.6	43.6	36.6	29.7
1950	77	88.0	6.6	42.5	34.3	26.1	-	-	-	81.4	7.3	40.2	32.1	23.9	-	-	-
	72	81.2	6.4	54.7	46.5	38.2	30.0	-	-	74.8	7.2	52.2	44.0	35.8	27.6	-	-
	67	74.4	6.3	66.8	58.6	50.4	42.2	33.9	-	68.2	7.2	64.1	55.9	47.7	39.6	31.4	-
	62	68.0	6.4	68.0	68.0	62.1	53.8	45.6	37.4	62.1	7.2	62.1	62.1	55.9	47.7	39.6	31.4
	57	68.8	6.4	68.8	68.8	62.8	54.6	46.4	38.2	64.4	7.2	64.4	64.4	58.0	49.8	41.6	33.5
2275	77	91.7	6.5	47.7	38.0	28.5	-	-	-	84.3	7.3	47.4	35.6	26.2	-	-	-
	72	84.6	6.4	60.7	51.3	41.8	32.4	-	-	77.4	7.2	58.0	48.6	39.2	29.9	-	-
	67	77.5	6.3	73.7	64.5	55.1	45.6	36.2	-	70.6	7.1	68.6	61.7	52.3	42.9	33.5	-
	62	70.8	6.3	70.8	70.8	67.9	58.4	49.0	39.5	64.3	7.1	64.3	64.3	61.2	51.9	42.5	33.1
	57	71.7	6.3	71.7	71.7	68.7	59.3	49.8	40.4	66.7	7.2	66.7	66.7	63.5	54.1	44.8	35.4
2600	77	95.3	6.5	52.9	41.6	31.0	-	-	-	87.2	7.2	54.5	39.0	28.5	-	-	-
	72	88.0	6.3	66.7	56.1	45.4	34.7	-	-	80.1	7.2	63.8	53.2	42.6	32.1	-	-
	67	80.6	6.2	80.6	70.5	59.8	49.1	38.5	-	73.1	7.1	73.1	67.4	56.8	46.3	35.7	-
	62	73.7	6.3	73.7	73.7	73.7	63.0	52.3	41.7	66.6	7.1	66.6	66.6	66.6	56.0	45.4	34.8
	57	74.6	6.3	74.6	74.6	74.6	63.9	53.2	42.6	69.0	7.1	69.0	69.0	69.0	58.5	47.9	37.3
2925	72	90.2	6.4	71.4	59.9	48.4	36.9	-	-	81.8	7.2	68.3	56.9	45.5	34.1	-	-
	67	82.6	6.3	82.6	75.3	63.8	52.3	40.8	-	74.6	7.1	74.6	70.6	60.6	49.3	37.9	-
	62	75.5	6.3	75.5	75.5	75.5	64.0	52.6	41.1	68.0	7.1	68.0	68.0	68.0	56.6	45.2	33.9
	57	76.5	6.3	76.5	76.5	76.5	65.0	53.5	42.0	70.5	7.2	70.5	70.5	70.5	59.1	47.8	36.4
3250	72	92.4	6.4	76.1	63.8	51.5	39.2	-	-	83.5	7.2	72.7	60.5	48.4	36.2	-	-
	67	84.7	6.3	84.7	80.1	67.8	55.5	43.2	-	76.2	7.2	76.2	73.9	64.5	52.3	40.1	-
	62	77.4	6.3	77.4	77.4	77.4	65.1	52.8	40.5	69.4	7.2	69.4	69.4	69.4	57.2	45.1	32.9
	57	78.3	6.3	78.3	78.3	78.3	66.0	53.7	41.5	72.0	7.2	72.0	72.0	72.0	59.8	47.6	35.5

XP078 (6.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
1625	77	72.6	8.1	28.9	26.6	19.6	-	-	-	66.7	8.9	29.0	22.9	17.6	-	-	-
	72	66.3	8.1	44.0	37.1	30.2	23.2	-	-	60.6	8.9	41.7	34.8	27.9	21.0	-	-
	67	60.1	8.0	59.2	47.6	40.7	33.8	26.8	-	54.5	8.9	54.5	45.1	38.2	31.3	24.4	-
	62	54.6	8.0	54.6	54.6	44.9	38.0	31.0	24.1	49.3	8.8	49.3	49.3	39.3	32.3	25.4	18.5
1950	77	74.7	8.1	38.0	29.8	21.7	-	-	-	68.1	8.9	38.6	27.6	19.5	-	-	-
	72	68.3	8.0	49.6	41.5	33.4	25.3	-	-	61.9	8.8	47.1	39.1	31.0	22.9	-	-
	67	61.9	8.0	61.3	53.2	45.1	37.0	28.8	-	55.7	8.8	55.7	50.5	42.4	34.4	26.3	-
	62	56.2	7.9	56.2	56.2	49.8	41.6	33.5	25.4	50.3	8.7	50.3	50.3	43.6	35.5	27.5	19.4
	57	60.0	8.0	60.0	60.0	53.1	45.0	36.9	28.8	55.6	8.9	55.6	55.6	48.3	40.2	32.2	24.1
2275	77	76.9	8.1	47.1	33.1	23.8	-	-	-	69.5	8.8	48.2	32.3	21.5	-	-	-
	72	70.3	8.0	55.3	46.0	36.7	27.4	-	-	63.2	8.8	52.5	43.3	34.1	24.8	-	-
	67	63.7	8.0	63.4	58.8	49.5	40.2	30.9	-	56.8	8.8	56.8	55.9	46.7	37.4	28.2	-
	62	57.8	7.9	57.8	57.8	54.6	45.3	36.0	26.7	51.3	8.7	51.3	51.3	48.0	38.7	29.5	20.3
	57	61.8	8.0	61.8	61.8	58.3	49.0	39.7	30.4	56.8	8.8	56.8	56.8	53.1	43.9	34.7	25.5
2600	77	79.0	8.0	56.2	36.4	25.9	-	-	-	70.9	8.8	57.8	37.1	23.4	-	-	-
	72	72.3	8.0	60.9	50.4	39.9	29.4	-	-	64.4	8.8	57.9	47.5	37.2	26.8	-	-
	67	65.5	7.9	65.5	64.3	53.9	43.4	32.9	-	58.0	8.8	58.0	58.0	50.9	40.5	30.1	-
	62	59.4	7.9	59.4	59.4	59.4	49.0	38.5	28.0	52.3	8.7	52.3	52.3	52.3	42.0	31.6	21.2
	57	63.5	8.0	63.5	63.5	63.5	53.0	42.5	32.1	57.9	8.8	57.9	57.9	57.9	47.6	37.2	26.8
2925	72	73.5	8.0	65.1	53.8	42.6	31.3	-	-	65.1	8.8	62.0	50.8	39.7	28.5	-	-
	67	66.6	8.0	66.6	66.0	57.5	46.2	35.0	-	58.6	8.8	58.6	58.6	54.3	43.2	32.0	-
	62	60.4	7.9	60.4	60.4	60.4	49.2	37.9	26.6	52.9	8.7	52.9	52.9	52.9	41.7	30.6	19.4
	57	64.5	8.0	64.5	64.5	64.5	53.3	42.0	30.8	58.6	8.9	58.6	58.6	58.6	47.4	36.3	25.1
3250	72	74.7	8.1	69.4	57.3	45.3	33.2	-	-	65.8	8.9	65.8	54.1	42.2	30.3	-	-
	67	67.7	8.0	67.7	67.7	61.1	49.1	37.0	-	59.2	8.9	59.2	59.2	57.8	45.9	33.9	-
	62	61.4	8.0	61.4	61.4	61.4	49.4	37.3	25.3	53.4	8.8	53.4	53.4	53.4	41.5	29.6	17.7
	57	65.6	8.0	65.6	65.6	65.6	53.5	41.5	29.5	59.2	8.9	59.2	59.2	59.2	47.3	35.4	23.5

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

XP090 (7.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
1875	77	117.7	5.8	48.9	40.3	31.8	-	-	-	111.1	6.6	46.1	37.7	29.3	-	-	-
	72	108.9	5.7	63.3	54.7	46.2	37.6	-	-	102.4	6.5	60.2	51.8	43.4	35.0	-	-
	67	100.0	5.7	77.7	69.2	60.6	52.0	43.4	-	93.7	6.4	74.4	66.0	57.6	49.1	40.7	-
	62	94.6	5.6	94.6	85.6	75.3	66.8	58.2	49.6	87.2	6.4	87.2	82.7	71.3	62.9	54.5	46.1
2250	77	122.0	5.8	54.1	44.3	34.5	-	-	-	114.7	6.6	51.0	41.4	31.8	-	-	-
	72	112.8	5.7	69.7	59.9	50.1	40.3	-	-	105.7	6.5	66.4	56.8	47.1	37.5	-	-
	67	103.6	5.7	85.4	75.6	65.7	55.9	46.1	-	96.8	6.5	81.7	72.1	62.5	52.9	43.3	-
	62	98.0	5.6	98.0	92.0	81.7	71.9	62.1	52.3	90.1	6.4	90.1	87.0	77.4	67.8	58.2	48.6
	57	94.3	5.6	94.3	94.3	85.9	76.1	66.2	56.4	88.1	6.4	88.1	88.1	80.7	71.1	61.5	51.8
2625	77	126.2	5.8	59.3	48.2	37.2	-	-	-	118.3	6.6	55.9	45.1	34.3	-	-	-
	72	116.7	5.8	76.2	65.1	54.0	43.0	-	-	109.0	6.6	72.5	61.7	50.9	40.0	-	-
	67	107.2	5.7	93.0	82.0	70.9	59.8	48.8	-	99.8	6.5	89.1	78.3	67.4	56.6	45.8	-
	62	101.4	5.6	101.4	98.3	88.2	77.1	66.0	55.0	92.9	6.4	92.9	91.4	83.6	72.7	61.9	51.1
	57	97.6	5.6	97.6	97.6	92.6	81.5	70.5	59.4	90.9	6.4	90.9	90.9	87.1	76.3	65.4	54.6
3000	77	130.4	5.8	64.5	52.2	39.9	-	-	-	121.9	6.7	60.9	48.8	36.8	-	-	-
	72	120.6	5.8	82.6	70.3	58.0	45.6	-	-	112.3	6.6	78.7	66.6	54.6	42.6	-	-
	67	110.7	5.7	100.7	88.4	76.1	63.7	51.4	-	102.8	6.5	96.5	84.4	72.4	60.4	48.3	-
	62	104.7	5.6	104.7	104.7	94.6	82.3	69.9	57.6	95.7	6.4	95.7	95.7	89.7	77.6	65.6	53.6
	57	100.8	5.6	100.8	100.8	99.3	87.0	74.7	62.4	93.7	6.4	93.7	93.7	93.5	81.4	69.4	57.4
3375	72	122.0	5.8	87.6	74.4	61.3	48.1	-	-	113.3	6.6	83.9	70.9	58.0	45.0	-	-
	67	112.1	5.7	107.1	93.5	80.4	67.2	54.1	-	103.7	6.5	100.5	89.8	76.9	63.9	51.0	-
	62	106.0	5.6	106.0	106.0	100.9	87.8	74.6	61.5	96.5	6.5	96.5	96.5	93.5	80.5	67.6	54.6
	57	102.1	5.7	102.1	102.1	101.3	88.2	75.0	61.9	94.4	6.5	94.4	94.4	94.4	81.4	68.4	55.5
3750	72	123.5	5.8	92.5	78.6	64.6	50.6	-	-	114.2	6.6	89.1	75.2	61.4	47.5	-	-
	67	113.4	5.7	113.4	98.7	84.7	70.7	56.7	-	104.6	6.5	104.6	95.2	81.4	67.5	53.6	-
	62	107.2	5.7	107.2	107.2	107.2	93.3	79.3	65.3	97.3	6.5	97.3	97.3	97.3	83.4	69.6	55.7
	57	103.3	5.7	103.3	103.3	103.3	89.3	75.3	61.3	95.2	6.5	95.2	95.2	95.2	81.3	67.5	53.6
		95°F								**105°F**							
1875	77	104.4	7.4	43.3	35.0	26.8	-	-	-	96.3	8.3	37.8	31.4	23.4	-	-	-
	72	95.9	7.3	57.2	48.9	40.7	32.4	-	-	88.5	8.2	53.5	45.4	37.4	29.3	-	-
	67	87.4	7.2	71.0	62.8	54.5	46.3	38.0	-	80.7	8.1	69.2	59.4	51.4	43.4	35.3	-
	62	79.8	7.2	79.8	79.8	67.3	59.0	50.8	42.5	74.7	8.1	74.7	74.7	62.6	54.6	46.5	38.5
2250	77	107.4	7.4	47.9	38.5	29.1	-	-	-	98.6	8.3	43.9	34.7	25.5	-	-	-
	72	98.7	7.3	63.0	53.6	44.2	34.8	-	-	90.6	8.3	59.2	50.0	40.8	31.6	-	-
	67	89.9	7.3	78.1	68.7	59.3	49.8	40.4	-	82.6	8.2	74.5	65.3	56.1	46.9	37.7	-
	62	82.1	7.2	82.1	82.1	73.1	63.7	54.3	44.8	76.5	8.1	76.5	76.5	68.3	59.1	49.9	40.7
	57	81.9	7.2	81.9	81.9	75.5	66.1	56.7	47.3	76.1	8.1	76.1	76.1	69.7	60.5	51.3	42.1
2625	77	110.4	7.4	52.6	42.0	31.4	-	-	-	100.9	8.4	50.1	38.0	27.6	-	-	-
	72	101.4	7.4	68.9	58.3	47.7	37.1	-	-	92.7	8.3	64.9	54.5	44.2	33.8	-	-
	67	92.4	7.3	85.2	74.6	64.0	53.4	42.8	-	84.5	8.2	79.8	71.1	60.7	50.4	40.0	-
	62	84.4	7.2	84.4	84.4	78.9	68.4	57.8	47.2	78.2	8.1	78.2	78.2	74.0	63.6	53.2	42.9
	57	84.2	7.2	84.2	84.2	81.6	71.0	60.4	49.8	77.9	8.1	77.9	77.9	75.5	65.2	54.8	44.4
3000	77	113.4	7.5	57.3	45.5	33.7	-	-	-	103.1	8.4	56.2	41.3	29.7	-	-	-
	72	104.1	7.4	74.8	63.0	51.2	39.5	-	-	94.8	8.3	70.6	59.1	47.6	36.0	-	-
	67	94.9	7.3	92.2	80.5	68.7	57.0	45.2	-	86.4	8.2	85.1	76.9	65.4	53.9	42.3	-
	62	86.7	7.2	86.7	86.7	84.8	73.0	61.3	49.5	80.0	8.2	80.0	80.0	79.6	68.1	56.6	45.1
	57	86.5	7.2	86.5	86.5	87.6	75.8	64.1	52.3	79.6	8.2	79.6	79.6	81.3	69.8	58.3	46.7
3375	72	104.6	7.4	80.2	67.5	54.7	41.9	-	-	94.9	8.3	75.6	63.1	50.7	38.2	-	-
	67	95.3	7.3	94.0	86.1	73.4	60.6	47.8	-	86.5	8.2	85.8	80.8	69.7	57.2	44.7	-
	62	87.0	7.3	87.0	87.0	86.1	73.3	60.6	47.8	80.1	8.2	80.1	80.1	79.9	67.4	54.9	42.5
	57	86.8	7.3	86.8	86.8	87.4	74.6	61.8	49.1	79.7	8.2	79.7	79.7	80.6	68.1	55.6	43.1
3750	72	105.0	7.4	85.7	71.9	58.2	44.4	-	-	95.0	8.3	80.6	67.2	53.8	40.3	-	-
	67	95.7	7.3	95.7	91.8	78.0	64.2	50.4	-	86.6	8.3	86.6	84.6	73.9	60.5	47.1	-
	62	87.4	7.3	87.4	87.4	87.4	73.6	59.8	46.0	80.1	8.2	80.1	80.1	80.1	66.7	53.3	39.9
	57	87.2	7.3	87.2	87.2	87.2	73.4	59.6	45.8	79.8	8.2	79.8	79.8	79.8	66.4	52.9	39.5

XP090 (7.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
1875	77	88.3	9.2	32.2	27.8	20.0	-	-	-	80.3	10.2	26.0	24.0	16.6	-	-	-
	72	81.1	9.1	49.8	41.9	34.1	26.3	-	-	73.8	10.1	46.1	38.5	30.9	23.3	-	-
	67	74.0	9.1	67.3	56.1	48.2	40.4	32.6	-	67.3	10.0	65.7	52.7	45.1	37.5	29.9	-
	62	69.6	9.0	69.6	69.6	57.9	50.1	42.3	34.5	64.5	10.0	64.5	64.5	53.2	45.6	38.0	30.4
2250	77	89.8	9.3	39.9	30.9	21.9	-	-	-	81.1	10.2	35.8	27.1	18.3	-	-	-
	72	82.6	9.2	55.3	46.4	37.4	28.4	-	-	74.5	10.1	51.5	42.7	34.0	25.2	-	-
	67	75.3	9.1	70.8	61.8	52.9	43.9	34.9	-	68.0	10.0	67.2	58.4	49.6	40.9	32.1	-
	62	70.8	9.1	70.8	70.8	63.4	54.5	45.5	36.5	65.2	10.0	65.2	65.2	58.6	49.9	41.1	32.3
	57	70.3	9.1	70.3	70.3	63.9	54.9	46.0	37.0	64.5	10.0	64.5	64.5	58.1	49.4	40.6	31.8
2625	77	91.4	9.3	47.5	34.0	23.8	-	-	-	81.9	10.2	45.6	30.2	20.0	-	-	-
	72	84.0	9.2	60.9	50.8	40.6	30.5	-	-	75.3	10.1	56.9	47.0	37.1	27.2	-	-
	67	76.6	9.1	74.3	67.6	57.5	47.3	37.2	-	68.7	10.1	68.7	64.1	54.2	44.3	34.3	-
	62	72.0	9.1	72.0	72.0	69.0	58.8	48.7	38.5	65.9	10.0	65.9	65.9	64.0	54.1	44.1	34.2
	57	71.5	9.1	71.5	71.5	69.5	59.4	49.2	39.1	65.2	10.0	65.2	65.2	63.5	53.6	43.6	33.7
3000	77	92.9	9.3	55.1	37.0	25.7	-	-	-	82.7	10.2	55.4	33.3	21.7	-	-	-
	72	85.4	9.2	66.5	55.2	43.9	32.6	-	-	76.0	10.2	62.4	51.3	40.2	29.1	-	-
	67	77.9	9.2	77.9	73.4	62.1	50.8	39.5	-	69.3	10.1	69.3	69.3	58.7	47.7	36.6	-
	62	73.3	9.1	73.3	73.3	74.5	63.2	51.9	40.6	66.5	10.1	66.5	66.5	66.5	58.3	47.2	36.1
	57	72.7	9.1	72.7	72.7	75.1	63.8	52.5	41.2	65.9	10.0	65.9	65.9	65.9	57.7	46.7	35.6
3375	72	85.2	9.2	71.0	58.8	46.6	34.5	-	-	75.5	10.2	66.4	54.5	42.6	30.7	-	-
	67	77.7	9.2	77.7	75.4	65.9	53.8	41.6	-	68.9	10.1	68.9	68.9	62.2	50.3	38.4	-
	62	73.1	9.1	73.1	73.1	73.7	61.5	49.3	37.1	66.1	10.1	66.1	66.1	66.1	55.6	43.7	31.8
	57	72.6	9.1	72.6	72.6	73.7	61.5	49.4	37.2	65.4	10.1	65.4	65.4	65.4	55.0	43.1	31.2
3750	72	85.0	9.3	75.5	62.4	49.4	36.3	-	-	75.0	10.2	70.4	57.7	45.0	32.3	-	-
	67	77.5	9.2	77.5	77.5	69.8	56.7	43.7	-	68.4	10.1	68.4	68.4	65.7	53.0	40.3	-
	62	72.9	9.1	72.9	72.9	72.9	59.8	46.8	33.7	65.6	10.1	65.6	65.6	65.6	52.9	40.2	27.5
	57	72.4	9.1	72.4	72.4	72.4	59.3	46.2	33.2	65.0	10.1	65.0	65.0	65.0	52.3	39.6	26.9

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

XP102 (8.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
2125	77	120.9	6.2	58.3	45.7	36.0	-	-	-	118.6	7.0	52.6	42.8	32.9	-	-	-
	72	113.7	6.1	69.9	60.2	50.5	40.8	-	-	109.4	6.9	67.3	57.4	47.6	37.7	-	-
	67	106.4	6.0	81.4	74.6	65.0	55.3	45.6	-	100.2	6.9	82.0	72.1	62.3	52.4	42.5	-
	62	96.7	5.9	96.7	94.3	79.3	69.6	59.9	50.2	92.3	6.8	92.3	91.1	75.4	65.6	55.7	45.9
2550	77	126.2	6.2	62.1	51.0	39.8	-	-	-	123.3	7.0	59.3	47.9	36.6	-	-	-
	72	118.6	6.1	78.1	67.0	55.8	44.7	-	-	113.7	7.0	75.6	64.2	52.9	41.5	-	-
	67	110.9	6.0	94.1	83.0	71.8	60.7	49.5	-	104.2	6.9	91.9	80.5	69.2	57.8	46.4	-
	62	100.9	6.0	100.9	99.3	87.7	76.5	65.4	54.3	96.0	6.8	96.0	95.2	83.8	72.4	61.0	49.7
	57	100.3	5.9	100.3	100.5	89.7	78.6	67.5	56.3	95.7	6.8	95.7	95.7	84.5	73.1	61.7	50.3
2975	77	131.4	6.2	65.9	56.2	43.6	-	-	-	128.0	7.0	66.0	53.1	40.2	-	-	-
	72	123.5	6.1	86.3	73.7	61.2	48.6	-	-	118.1	7.0	83.9	71.0	58.1	45.2	-	-
	67	115.5	6.0	106.8	91.3	78.7	66.1	53.5	-	108.1	6.9	101.8	89.0	76.1	63.2	50.3	-
	62	105.1	6.0	105.1	104.3	96.1	83.5	70.9	58.3	99.6	6.9	99.6	99.2	92.2	79.3	66.4	53.5
	57	104.4	6.0	104.4	104.6	98.3	85.8	73.2	60.6	99.3	6.9	99.3	99.3	92.9	80.0	67.1	54.2
3400	77	136.7	6.2	69.7	61.5	47.5	-	-	-	132.7	7.1	72.7	58.3	43.8	-	-	-
	72	128.4	6.1	94.6	80.5	66.5	52.5	-	-	122.4	7.0	92.2	77.8	63.4	49.0	-	-
	67	120.1	6.0	119.5	99.6	85.6	71.5	57.5	-	112.1	7.0	111.8	97.4	83.0	68.5	54.1	-
	62	109.3	6.0	109.3	109.3	104.5	90.4	76.4	62.4	103.3	6.9	103.3	103.3	100.5	86.1	71.7	57.3
	57	108.6	6.0	108.6	108.6	106.9	92.9	78.9	64.9	103.0	6.9	103.0	103.0	101.3	86.9	72.5	58.1
3825	72	132.2	6.2	101.6	86.1	70.7	55.3	-	-	125.5	7.1	99.2	83.4	67.6	51.8	-	-
	67	123.6	6.1	123.3	106.7	91.0	75.5	60.1	-	115.0	7.0	114.8	104.3	88.4	72.6	56.8	-
	62	112.5	6.0	112.5	112.5	110.1	94.7	79.2	63.8	105.9	6.9	105.9	105.9	104.5	88.7	72.9	57.1
	57	111.8	6.0	111.8	111.8	111.0	95.5	80.1	64.7	105.6	6.9	105.6	105.6	104.8	88.9	73.1	57.3
4250	72	136.0	6.3	108.6	91.8	74.9	58.1	-	-	128.6	7.1	106.2	89.0	71.8	54.5	-	-
	67	127.2	6.2	127.2	113.8	96.4	79.5	62.7	-	117.8	7.0	117.8	111.1	93.9	76.7	59.4	-
	62	115.7	6.1	115.7	115.7	115.7	98.9	82.1	65.2	108.6	7.0	108.6	108.6	108.6	91.3	74.1	56.8
	57	115.0	6.1	115.0	115.0	115.0	98.2	81.4	64.5	108.2	7.0	108.2	108.2	108.2	91.0	73.7	56.5
		95°F								**105°F**							
2125	77	116.2	7.8	46.9	39.8	29.8	-	-	-	107.5	8.9	44.1	37.9	28.3	-	-	-
	72	105.1	7.8	64.7	54.7	44.7	34.7	-	-	97.2	8.8	62.6	52.5	42.4	32.3	-	-
	67	94.0	7.8	82.5	69.6	59.6	49.5	39.5	-	86.8	8.8	81.1	67.1	56.5	46.4	36.3	-
	62	87.9	7.7	87.9	87.9	71.6	61.6	51.5	41.5	80.7	8.7	80.7	80.7	68.6	58.5	48.4	38.3
2550	77	120.4	7.8	56.5	44.9	33.3	-	-	-	111.4	8.9	56.2	43.5	31.8	-	-	-
	72	108.9	7.8	73.1	61.5	49.9	38.3	-	-	100.6	8.9	71.1	59.4	47.6	35.9	-	-
	67	97.4	7.8	89.7	78.1	66.5	54.9	43.3	-	89.9	8.8	86.0	75.2	63.5	51.7	40.0	-
	62	91.1	7.7	91.1	91.1	79.9	68.3	56.7	45.1	83.5	8.7	83.5	83.5	77.0	65.3	53.5	41.8
	57	91.1	7.7	91.1	90.8	79.2	67.6	56.0	44.4	85.1	8.8	85.1	85.0	73.3	61.6	49.8	38.1
2975	77	124.5	7.9	66.1	50.0	36.8	-	-	-	115.2	9.0	68.4	49.2	35.3	-	-	-
	72	112.6	7.9	81.5	68.3	55.1	41.9	-	-	104.0	8.9	79.7	66.3	52.9	39.4	-	-
	67	100.7	7.8	96.9	86.6	73.4	60.2	47.0	-	92.9	8.9	91.0	83.4	70.4	57.0	43.6	-
	62	94.2	7.7	94.2	94.2	88.2	75.0	61.8	48.6	86.4	8.8	86.4	86.4	85.5	72.1	58.7	45.2
	57	94.2	7.7	94.2	94.1	87.5	74.3	61.0	47.8	88.0	8.8	88.0	87.9	81.4	67.9	54.5	41.1
3400	77	128.7	7.9	75.7	55.0	40.2	-	-	-	119.0	9.0	80.5	54.8	38.8	-	-	-
	72	116.4	7.9	89.9	75.1	60.3	45.5	-	-	107.5	9.0	88.3	73.2	58.1	43.0	-	-
	67	104.1	7.9	104.1	95.2	80.4	65.6	50.8	-	96.0	8.9	96.0	91.5	77.4	62.3	47.2	-
	62	97.4	7.8	97.4	97.4	96.6	81.8	67.0	52.2	89.2	8.8	89.2	89.2	93.9	78.9	63.8	48.7
	57	97.4	7.8	97.4	97.4	95.7	80.9	66.1	51.3	90.9	8.8	90.9	90.9	89.4	74.3	59.2	44.1
3825	72	118.8	7.9	96.9	80.7	64.4	48.2	-	-	109.5	9.0	95.4	78.8	62.2	45.6	-	-
	67	106.3	7.9	106.3	101.8	85.9	69.7	53.4	-	97.8	8.9	97.8	95.6	82.9	66.3	49.7	-
	62	99.4	7.8	99.4	99.4	99.0	82.8	66.5	50.3	90.9	8.8	90.9	90.9	93.3	76.7	60.1	43.5
	57	99.4	7.8	99.4	99.4	98.6	82.3	66.1	49.9	92.6	8.8	92.6	92.6	91.9	75.3	58.7	42.1
4250	72	121.3	7.9	103.9	86.2	68.6	50.9	-	-	111.6	9.0	102.5	84.4	66.3	48.2	-	-
	67	108.4	7.9	108.4	108.4	91.4	73.8	56.1	-	99.7	8.9	99.7	99.7	88.4	70.3	52.2	-
	62	101.4	7.8	101.4	101.4	101.4	83.8	66.1	48.4	92.6	8.9	92.6	92.6	92.6	74.6	56.5	38.4
	57	101.4	7.8	101.4	101.4	101.4	83.8	66.1	48.5	94.4	8.9	94.4	94.4	94.4	76.3	58.2	40.1

XP102 (8.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
2125	77	98.9	10.0	41.2	36.0	26.8	-	-	-	90.2	11.1	44.1	31.8	25.3	-	-	-
	72	89.2	9.9	60.4	50.3	40.1	30.0	-	-	81.3	11.0	58.2	48.0	37.8	27.6	-	-
	67	79.6	9.8	79.6	64.5	53.4	43.3	33.2	-	72.4	10.9	72.4	62.0	50.4	40.2	30.0	-
	62	73.4	9.7	73.4	73.4	65.6	55.4	45.3	35.2	66.2	10.8	66.2	66.2	66.2	52.3	42.2	32.0
2550	77	102.3	10.0	55.9	42.2	30.3	-	-	-	93.3	11.1	59.4	40.8	28.8	-	-	-
	72	92.4	9.9	69.1	57.3	45.4	33.5	-	-	84.1	11.0	67.2	55.1	43.1	31.1	-	-
	67	82.4	9.8	82.4	72.3	60.5	48.6	36.7	-	74.9	10.9	74.9	69.4	57.4	45.4	33.4	-
	62	76.0	9.8	76.0	76.0	74.1	62.3	50.4	38.5	68.5	10.8	68.5	68.5	68.5	59.2	47.2	35.2
	57	79.1	9.8	79.1	79.1	67.5	55.6	43.7	31.8	73.1	10.8	73.1	73.1	61.6	49.6	37.6	25.5
2975	77	105.8	10.1	70.7	48.4	33.8	-	-	-	96.4	11.2	74.8	49.9	32.3	-	-	-
	72	95.5	10.0	77.9	64.3	50.6	37.0	-	-	86.9	11.0	76.1	62.2	48.4	34.6	-	-
	67	85.1	9.9	85.1	80.1	67.5	53.8	40.2	-	77.3	10.9	77.3	76.9	64.5	50.6	36.8	-
	62	78.5	9.8	78.5	78.5	82.7	69.1	55.5	41.8	70.7	10.8	70.7	70.7	70.7	66.1	52.3	38.5
	57	81.8	9.8	81.8	81.8	75.3	61.6	48.0	34.4	75.6	10.9	75.6	75.6	69.2	55.3	41.5	27.7
3400	77	109.2	10.1	85.4	54.6	37.3	-	-	-	99.5	11.2	90.2	58.9	35.9	-	-	-
	72	98.6	10.0	86.6	71.3	55.9	40.5	-	-	89.7	11.1	85.0	69.4	53.7	38.0	-	-
	67	87.9	9.9	87.9	87.9	74.5	59.1	43.7	-	79.8	10.9	79.8	79.8	71.5	55.8	40.2	-
	62	81.1	9.8	81.1	81.1	91.3	75.9	60.6	45.2	73.0	10.9	73.0	73.0	73.0	73.0	57.4	41.7
	57	84.4	9.9	84.4	84.4	83.1	67.7	52.3	37.0	78.0	10.9	78.0	78.0	76.8	61.1	45.5	29.8
3825	72	100.3	10.0	93.9	76.9	60.0	43.0	-	-	91.0	11.1	91.0	75.1	57.8	40.5	-	-
	67	89.4	9.9	89.4	89.4	79.9	63.0	46.0	-	81.0	11.0	81.0	81.0	76.9	59.6	42.3	-
	62	82.5	9.9	82.5	82.5	87.6	70.7	53.7	36.8	74.0	10.9	74.0	74.0	74.0	64.6	47.3	30.0
	57	85.9	9.9	85.9	85.9	85.2	68.3	51.3	34.4	79.1	10.9	79.1	79.1	78.5	61.2	43.9	26.6
4250	72	101.9	10.1	101.1	82.6	64.1	45.6	-	-	92.3	11.1	92.3	80.8	61.8	42.9	-	-
	67	90.9	10.0	90.9	90.9	85.4	66.8	48.3	-	82.1	11.0	82.1	82.1	82.1	63.4	44.4	-
	62	83.9	9.9	83.9	83.9	83.9	65.4	46.8	28.3	75.1	10.9	75.1	75.1	75.1	56.2	37.2	18.3
	57	87.3	9.9	87.3	87.3	87.3	68.8	50.3	31.8	80.3	11.0	80.3	80.3	80.3	61.3	42.4	23.4

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

XP120 (10 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
2500	77	132.6	6.7	57.3	45.8	36.7	-	-	-	131.0	8.0	56.1	45.7	35.4	-	-	-
	72	125.0	6.9	74.4	65.3	56.2	47.1	-	-	121.8	8.0	74.7	64.4	54.1	43.7	-	-
	67	117.5	7.0	91.5	84.9	75.8	66.7	57.6	-	112.6	8.0	93.4	83.0	72.7	62.4	52.1	-
	62	105.6	6.6	105.6	105.6	91.5	82.4	73.3	64.2	103.3	7.8	103.3	103.3	87.5	77.2	66.9	56.6
3000	77	142.4	6.8	64.4	52.7	40.9	-	-	-	138.6	8.0	64.5	52.0	39.4	-	-	-
	72	134.2	7.0	86.2	74.5	62.8	51.0	-	-	128.9	8.1	85.2	72.7	60.2	47.7	-	-
	67	126.1	7.1	108.1	96.3	84.6	72.9	61.1	-	119.2	8.1	106.0	93.5	80.9	68.4	55.9	-
	62	113.4	6.7	113.4	113.4	102.2	90.5	78.7	67.0	109.3	7.8	109.3	109.3	97.4	84.9	72.4	59.9
	57	111.1	6.9	111.1	111.1	103.3	91.6	79.9	68.1	107.6	8.0	107.6	107.6	98.1	85.5	73.0	60.5
3500	77	152.2	6.9	71.5	59.6	45.2	-	-	-	146.3	8.1	72.9	58.2	43.4	-	-	-
	72	143.4	7.1	98.1	83.7	69.3	55.0	-	-	136.0	8.1	95.8	81.0	66.3	51.6	-	-
	67	134.6	7.2	124.6	107.8	93.4	79.1	64.7	-	125.8	8.1	118.6	103.9	89.2	74.4	59.7	-
	62	121.2	6.8	121.2	121.2	112.9	98.5	84.1	69.8	115.4	7.9	115.4	115.4	107.4	92.6	77.9	63.1
	57	118.8	7.0	118.8	118.8	114.1	99.7	85.4	71.0	113.5	8.0	113.5	113.5	108.0	93.3	78.6	63.8
4000	77	162.0	7.0	78.6	66.5	49.5	-	-	-	153.9	8.2	81.3	64.4	47.4	-	-	-
	72	152.6	7.2	109.9	92.9	75.9	58.9	-	-	143.1	8.2	106.3	89.4	72.4	55.5	-	-
	67	143.2	7.3	141.1	119.3	102.3	85.3	68.3	-	132.3	8.2	131.3	114.3	97.4	80.4	63.5	-
	62	128.9	6.9	128.9	128.9	123.5	106.5	89.5	72.6	121.4	8.0	121.4	121.4	117.3	100.3	83.4	66.4
	57	126.4	7.1	126.4	126.4	124.9	107.9	90.9	73.9	119.4	8.1	119.4	119.4	118.0	101.0	84.1	67.2
4500	72	153.5	7.0	115.1	97.2	79.4	61.5	-	-	144.8	8.1	112.4	94.4	76.4	58.4	-	-
	67	144.1	7.2	143.0	124.8	107.0	89.1	71.2	-	133.9	8.1	133.3	120.7	102.7	84.7	66.7	-
	62	129.7	6.8	129.7	129.7	127.0	109.1	91.2	73.4	122.8	7.9	122.8	122.8	120.7	102.7	84.7	66.7
	57	127.1	7.0	127.1	127.1	126.4	108.5	90.6	72.7	120.8	8.0	120.8	120.8	120.1	102.1	84.1	66.1
5000	72	154.4	6.9	120.3	101.6	82.8	64.1	-	-	146.5	8.1	118.5	99.4	80.3	61.3	-	-
	67	145.0	7.1	145.0	130.4	111.6	92.9	74.1	-	135.4	8.1	135.4	127.1	108.1	89.0	69.9	-
	62	130.4	6.6	130.4	130.4	130.4	111.7	92.9	74.2	124.2	7.8	124.2	124.2	124.2	105.2	86.1	67.0
	57	127.9	6.8	127.9	127.9	127.9	109.1	90.3	71.6	122.2	8.0	122.2	122.2	122.2	103.2	84.1	65.0
		95°F								**105°F**							
2500	77	129.5	9.2	54.8	45.7	34.2	-	-	-	120.4	10.4	49.5	41.8	31.1	-	-	-
	72	118.6	9.1	75.0	63.5	51.9	40.4	-	-	109.9	10.3	71.4	59.9	48.4	37.0	-	-
	67	107.8	9.0	95.2	81.2	69.7	58.1	46.6	-	99.5	10.2	93.2	78.0	65.7	54.3	42.8	-
	62	101.0	9.0	101.0	101.0	83.6	72.0	60.5	48.9	93.0	10.1	93.0	93.0	75.3	63.9	52.4	41.0
3000	77	134.9	9.2	64.6	51.2	37.9	-	-	-	125.1	10.4	63.4	48.4	34.8	-	-	-
	72	123.6	9.1	84.3	70.9	57.6	44.3	-	-	114.2	10.3	81.3	67.7	54.1	40.6	-	-
	67	112.3	9.1	103.9	90.6	77.3	63.9	50.6	-	103.4	10.2	99.2	87.1	73.5	59.9	46.3	-
	62	105.3	9.0	105.3	105.3	92.7	79.4	66.0	52.7	96.7	10.2	96.7	96.7	84.2	70.6	57.0	43.4
	57	104.0	9.0	104.0	104.0	92.8	79.5	66.1	52.8	95.6	10.2	95.6	95.6	84.7	71.1	57.5	43.9
3500	77	140.4	9.3	74.3	56.8	41.6	-	-	-	129.9	10.5	77.3	55.0	38.5	-	-	-
	72	128.6	9.2	93.5	78.4	63.3	48.2	-	-	118.6	10.4	91.3	75.6	59.8	44.1	-	-
	67	116.9	9.1	112.7	100.0	84.9	69.8	54.7	-	107.3	10.3	105.2	96.1	81.2	65.5	49.8	-
	62	109.6	9.0	109.6	109.6	101.8	86.7	71.6	56.5	100.4	10.2	100.4	100.4	93.0	77.3	61.6	45.9
	57	108.2	9.1	108.2	108.2	102.0	86.8	71.7	56.6	99.2	10.3	99.2	99.2	93.6	77.9	62.1	46.4
4000	77	145.8	9.3	84.1	62.3	45.4	-	-	-	134.6	10.5	91.2	61.6	42.1	-	-	-
	72	133.6	9.2	102.7	85.8	69.0	52.1	-	-	122.9	10.5	101.2	83.4	65.6	47.7	-	-
	67	121.4	9.1	121.4	109.4	92.5	75.6	58.7	-	111.2	10.4	111.2	105.2	89.0	71.2	53.3	-
	62	113.8	9.0	113.8	113.8	111.0	94.1	77.2	60.3	104.0	10.3	104.0	104.0	101.9	84.1	66.2	48.4
	57	112.5	9.1	112.5	112.5	111.1	94.2	77.3	60.4	102.8	10.3	102.8	102.8	102.5	84.6	66.8	49.0
4500	72	136.1	9.2	109.7	91.5	73.4	55.3	-	-	124.7	10.4	107.3	88.5	69.6	50.8	-	-
	67	123.6	9.1	123.6	116.6	98.5	80.4	62.2	-	112.9	10.3	112.9	109.4	94.5	75.7	56.8	-
	62	115.9	9.0	115.9	115.9	114.5	96.4	78.2	60.1	105.6	10.3	105.6	105.6	104.5	85.7	66.8	48.0
	57	114.5	9.1	114.5	114.5	113.8	95.7	77.6	59.5	104.4	10.3	104.4	104.4	104.2	85.3	66.5	47.6
5000	72	138.5	9.2	116.6	97.2	77.9	58.5	-	-	126.6	10.4	113.4	93.6	73.7	53.8	-	-
	67	125.9	9.1	125.9	123.8	104.5	85.1	65.7	-	114.5	10.3	114.5	113.5	100.0	80.1	60.3	-
	62	118.0	9.0	118.0	118.0	118.0	98.6	79.3	59.9	107.1	10.2	107.1	107.1	107.1	87.3	67.4	47.5
	57	116.6	9.1	116.6	116.6	116.6	97.2	77.9	58.5	105.9	10.3	105.9	105.9	105.9	86.0	66.1	46.3

XP120 (10 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
2500	77	111.3	11.5	44.2	37.9	28.1	-	-	-	102.2	12.7	45.2	30.9	25.1	-	-	-
	72	101.2	11.4	67.7	56.3	44.9	33.6	-	-	92.5	12.6	64.0	52.7	41.5	30.2	-	-
	67	91.1	11.3	91.1	74.8	61.8	50.4	39.1	-	82.8	12.5	82.8	71.8	57.9	46.6	35.3	-
	62	85.0	11.2	85.0	85.0	67.1	55.8	44.4	33.0	77.0	12.4	77.0	77.0	58.9	47.6	36.3	25.1
3000	77	115.3	11.6	62.3	45.5	31.7	-	-	-	105.5	12.8	65.3	42.7	28.6	-	-	-
	72	104.9	11.5	78.4	64.5	50.7	36.8	-	-	95.5	12.7	75.4	61.3	47.2	33.1	-	-
	67	94.4	11.4	94.4	83.5	69.7	55.8	42.0	-	85.5	12.6	85.5	80.0	65.9	51.8	37.7	-
	62	88.1	11.3	88.1	88.1	75.7	61.9	48.0	34.2	79.5	12.5	79.5	79.5	67.2	53.1	39.0	24.9
	57	87.1	11.4	87.1	87.1	76.5	62.7	48.8	35.0	78.6	12.5	78.6	78.6	68.4	54.3	40.2	26.1
3500	77	119.4	11.7	80.3	53.2	35.3	-	-	-	108.8	12.9	85.4	54.4	32.1	-	-	-
	72	108.5	11.6	89.0	72.7	56.4	40.1	-	-	98.5	12.8	86.8	69.9	53.0	36.1	-	-
	67	97.7	11.5	97.7	92.3	77.6	61.3	45.0	-	88.1	12.7	88.1	88.1	73.9	57.0	40.1	-
	62	91.2	11.4	91.2	91.2	84.3	68.0	51.6	35.3	82.0	12.6	82.0	82.0	75.5	58.6	41.7	24.8
	57	90.1	11.5	90.1	90.1	85.2	68.9	52.6	36.3	81.1	12.7	81.1	81.1	76.8	59.9	43.0	26.1
4000	77	123.4	11.8	98.4	60.8	38.9	-	-	-	112.1	13.0	105.5	66.1	35.6	-	-	-
	72	112.2	11.7	99.7	80.9	62.2	43.4	-	-	101.5	12.9	98.2	78.5	58.8	39.0	-	-
	67	101.0	11.6	101.0	101.0	85.5	66.7	47.9	-	90.8	12.9	90.8	90.8	81.9	62.2	42.5	-
	62	94.2	11.5	94.2	94.2	92.8	74.1	55.3	36.5	84.4	12.7	84.4	84.4	83.7	64.0	44.3	24.6
	57	93.2	11.5	93.2	93.2	93.8	75.1	56.3	37.5	83.6	12.8	83.6	83.6	83.6	65.5	45.8	26.1
4500	72	113.4	11.7	105.0	85.4	65.8	46.3	-	-	102.1	12.9	102.1	82.4	62.1	41.7	-	-
	67	102.1	11.6	102.1	102.1	90.5	70.9	51.4	-	91.4	12.8	91.4	91.4	86.5	66.2	45.9	-
	62	95.3	11.5	95.3	95.3	94.6	75.0	55.4	35.8	84.9	12.7	84.9	84.9	84.6	64.3	44.0	23.7
	57	94.2	11.5	94.2	94.2	94.5	74.9	55.4	35.8	84.0	12.7	84.0	84.0	84.0	64.6	44.3	23.9
5000	72	114.6	11.6	110.3	89.9	69.5	49.1	-	-	102.7	12.8	102.7	86.3	65.4	44.4	-	-
	67	103.2	11.5	103.2	103.2	95.6	75.2	54.8	-	91.9	12.7	91.9	91.9	91.1	70.2	49.3	-
	62	96.3	11.4	96.3	96.3	96.3	75.9	55.5	35.1	85.4	12.6	85.4	85.4	85.4	64.5	43.6	22.7
	57	95.2	11.5	95.2	95.2	95.2	74.8	54.4	34.0	84.5	12.7	84.5	84.5	84.5	63.6	42.7	21.8

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

XP150 (12.5 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
				Sensible Capacity (MBh)								Sensible Capacity (MBh)					
CFM	WB (°F)	Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								**85°F**							
3125	77	163.7	9.7	70.7	58.2	45.7	-	-	-	159.4	10.6	67.4	54.7	42.0	-	-	-
	72	158.9	9.5	95.0	82.6	70.1	57.6	-	-	153.7	10.5	92.3	79.6	67.0	54.3	-	-
	67	154.2	9.4	119.4	106.9	94.4	81.9	69.4	-	148.0	10.4	117.2	104.6	91.9	79.2	66.5	-
	62	145.0	9.3	145.0	137.7	121.3	108.8	96.4	83.9	139.1	10.3	139.1	134.5	116.3	103.6	90.9	78.2
3750	77	169.7	9.7	77.1	63.4	49.7	-	-	-	165.0	10.7	74.2	60.0	45.8	-	-	-
	72	164.7	9.5	103.5	89.8	76.1	62.3	-	-	159.1	10.6	101.3	87.2	73.0	58.9	-	-
	67	159.8	9.4	129.9	116.2	102.4	88.7	75.0	-	153.2	10.5	128.5	114.4	100.2	86.0	71.9	-
	62	150.3	9.3	150.3	145.4	131.7	118.0	104.2	90.5	144.0	10.3	144.0	140.9	126.8	112.6	98.5	84.3
	57	147.7	9.4	147.7	147.7	135.9	122.2	108.4	94.7	141.5	10.4	141.5	141.5	128.9	114.7	100.5	86.4
4375	77	175.7	9.7	83.5	68.5	53.6	-	-	-	170.6	10.7	80.9	65.3	49.6	-	-	-
	72	170.5	9.5	112.0	97.0	82.0	67.1	-	-	164.5	10.6	110.4	94.7	79.1	63.4	-	-
	67	165.4	9.4	140.4	125.5	110.5	95.5	80.6	-	158.4	10.5	139.8	124.2	108.5	92.9	77.2	-
	62	155.6	9.3	155.6	153.2	142.1	127.1	112.1	97.2	148.9	10.4	148.9	147.4	137.3	121.7	106.0	90.4
	57	152.9	9.4	152.9	152.9	146.6	131.6	116.7	101.7	146.3	10.4	146.3	146.3	139.6	123.9	108.3	92.6
5000	77	181.6	9.7	89.9	73.7	57.5	-	-	-	176.2	10.7	87.7	70.6	53.4	-	-	-
	72	176.3	9.5	120.4	104.2	88.0	71.8	-	-	169.9	10.6	119.4	102.3	85.1	68.0	-	-
	67	171.0	9.4	150.9	134.7	118.5	102.3	86.1	-	163.6	10.5	151.1	134.0	116.8	99.7	82.6	-
	62	160.9	9.3	160.9	160.9	152.4	136.2	120.0	103.8	153.8	10.4	153.8	153.8	147.8	130.7	113.6	96.4
	57	158.1	9.4	158.1	158.1	157.3	141.1	124.9	108.7	151.2	10.4	151.2	151.2	150.3	133.1	116.0	98.9
5625	72	180.7	9.6	125.2	108.5	91.8	75.2	-	-	174.2	10.6	125.1	107.3	89.6	71.8	-	-
	67	175.3	9.5	159.2	140.3	123.6	107.0	90.3	-	167.7	10.6	158.4	140.7	122.9	105.2	87.4	-
	62	164.9	9.4	164.9	164.9	160.6	144.0	127.3	110.6	157.7	10.4	157.7	157.7	154.7	136.9	119.2	101.4
	57	162.0	9.4	162.0	162.0	161.6	145.0	128.3	111.6	154.9	10.5	154.9	154.9	154.5	136.7	119.0	101.2
6250	72	185.0	9.6	129.9	112.8	95.7	78.5	-	-	178.4	10.7	130.7	112.4	94.0	75.7	-	-
	67	179.5	9.5	167.4	145.8	128.7	111.6	94.5	-	171.8	10.6	165.8	147.4	129.0	110.7	92.3	-
	62	168.8	9.4	168.8	168.8	168.8	151.7	134.6	117.5	161.5	10.4	161.5	161.5	161.5	143.2	124.8	106.4
	57	165.9	9.4	165.9	165.9	165.9	148.8	131.7	114.6	158.7	10.5	158.7	158.7	158.7	140.3	122.0	103.6
		95°F								**105°F**							
3125	77	155.1	11.6	64.1	51.2	38.3	-	-	-	147.3	13.0	58.0	47.7	34.5	-	-	-
	72	148.5	11.5	89.6	76.7	63.8	51.0	-	-	140.1	12.9	86.8	73.7	60.6	47.5	-	-
	67	141.8	11.4	115.1	102.2	89.4	76.5	63.6	-	133.0	12.8	115.6	99.8	86.7	73.6	60.5	-
	62	133.3	11.3	133.3	131.3	111.2	98.3	85.4	72.6	126.1	12.6	126.1	124.4	104.1	91.0	77.9	64.8
3750	77	160.4	11.6	71.2	56.6	42.0	-	-	-	152.0	13.0	67.7	52.8	37.8	-	-	-
	72	153.5	11.6	99.2	84.6	70.0	55.4	-	-	144.6	12.9	96.2	81.3	66.4	51.5	-	-
	67	146.6	11.5	127.1	112.5	97.9	83.3	68.7	-	137.2	12.8	124.8	109.9	95.0	80.1	65.2	-
	62	137.8	11.3	137.8	136.5	121.9	107.3	92.7	78.1	130.1	12.7	130.1	129.0	114.1	99.1	84.2	69.3
	57	135.3	11.4	135.3	135.3	121.8	107.2	92.6	78.0	128.0	12.7	128.0	128.0	114.9	100.0	85.1	70.2
4375	77	165.6	11.7	78.4	62.0	45.7	-	-	-	156.7	13.1	77.3	57.9	41.2	-	-	-
	72	158.5	11.7	108.8	92.4	76.1	59.8	-	-	149.0	13.0	105.7	88.9	72.2	55.5	-	-
	67	151.4	11.6	139.2	122.9	106.5	90.2	73.9	-	141.4	12.9	134.0	120.0	103.3	86.5	69.8	-
	62	142.3	11.4	142.3	141.6	132.6	116.2	99.9	83.6	134.1	12.7	134.1	133.5	124.0	107.3	90.6	73.8
	57	139.8	11.5	139.8	139.8	132.5	116.2	99.8	83.5	131.9	12.8	131.9	131.9	125.0	108.2	91.5	74.8
5000	77	170.8	11.8	85.5	67.4	49.4	-	-	-	161.3	13.1	86.9	63.0	44.5	-	-	-
	72	163.5	11.7	118.4	100.3	82.3	64.2	-	-	153.5	13.0	115.1	96.5	78.0	59.5	-	-
	67	156.2	11.7	151.3	133.2	115.1	97.1	79.0	-	145.7	12.9	143.2	130.1	111.5	93.0	74.5	-
	62	146.8	11.5	146.8	146.8	143.3	125.2	107.1	89.0	138.1	12.8	138.1	138.1	134.0	115.4	96.9	78.4
	57	144.2	11.5	144.2	144.2	143.2	125.1	107.1	89.0	135.9	12.8	135.9	135.9	135.0	116.5	97.9	79.4
5625	72	167.7	11.7	125.0	106.2	87.3	68.5	-	-	157.5	13.0	122.1	102.6	83.1	63.5	-	-
	67	160.2	11.6	157.7	141.1	122.2	103.4	84.6	-	149.5	12.9	148.3	137.9	118.8	99.3	79.8	-
	62	150.5	11.5	150.5	150.5	148.7	129.9	111.1	92.2	141.7	12.8	141.7	141.7	139.7	120.1	100.6	81.1
	57	147.9	11.5	147.9	147.9	147.3	128.5	109.7	90.8	139.4	12.8	139.4	139.4	139.0	119.5	100.0	80.5
6250	72	171.8	11.7	131.6	112.0	92.4	72.8	-	-	161.6	13.0	129.1	108.6	88.1	67.6	-	-
	67	164.1	11.6	164.1	148.9	129.3	109.7	90.1	-	153.3	12.9	153.3	145.7	126.0	105.5	85.1	-
	62	154.2	11.5	154.2	154.2	154.2	134.6	115.0	95.4	145.4	12.8	145.4	145.4	145.4	124.9	104.4	83.9
	57	151.5	11.5	151.5	151.5	151.5	131.9	112.3	92.7	143.0	12.8	143.0	143.0	143.0	122.5	102.1	81.6

XP150 (12.5 Ton) (Continued)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
		Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)						Total Capacity[1] (MBh)	Total Input (kW)[2]	Sensible Capacity (MBh)					
CFM	WB (°F)			Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		115°F								**125°F**							
3125	77	139.5	14.4	52.0	44.1	30.8	-	-	-	131.7	15.8	47.4	40.6	27.0	-	-	-
	72	131.8	14.2	84.1	70.7	57.4	44.1	-	-	123.5	15.6	81.4	67.8	54.2	40.6	-	-
	67	124.1	14.1	116.1	97.4	84.0	70.7	57.4	-	115.3	15.4	115.3	95.0	81.4	67.8	54.2	-
	62	118.9	14.0	118.9	117.5	97.0	83.7	70.3	57.0	111.7	15.4	111.7	110.5	89.9	76.4	62.8	49.2
3750	77	143.6	14.4	64.1	48.9	33.7	-	-	-	135.2	15.8	62.4	45.1	29.5	-	-	-
	72	135.7	14.3	93.3	78.1	62.9	47.6	-	-	126.8	15.6	90.4	74.8	59.3	43.7	-	-
	67	127.8	14.1	122.5	107.2	92.0	76.8	61.6	-	118.4	15.4	118.4	104.6	89.1	73.5	58.0	-
	62	122.4	14.0	122.4	121.5	106.2	91.0	75.8	60.6	114.7	15.4	114.7	114.0	98.4	82.9	67.3	51.8
	57	120.6	14.1	120.6	120.6	108.1	92.8	77.6	62.4	113.3	15.4	113.3	113.3	101.2	85.6	70.1	54.6
4375	77	147.7	14.5	76.2	53.7	36.6	-	-	-	138.8	15.8	77.3	49.6	32.1	-	-	-
	72	139.6	14.3	102.5	85.4	68.3	51.2	-	-	130.1	15.6	99.4	81.9	64.4	46.9	-	-
	67	131.5	14.1	128.8	117.1	100.0	82.9	65.8	-	121.5	15.4	121.5	114.2	96.7	79.2	61.7	-
	62	125.9	14.1	125.9	125.4	115.4	98.3	81.2	64.1	117.8	15.4	117.8	117.4	106.9	89.4	71.9	54.4
	57	124.1	14.1	124.1	124.1	117.4	100.3	83.2	66.1	116.3	15.4	116.3	116.3	109.9	92.4	74.9	57.4
5000	77	151.8	14.5	88.3	58.5	39.5	-	-	-	142.3	15.9	92.2	54.1	34.6	-	-	-
	72	143.5	14.3	111.7	92.7	73.7	54.8	-	-	133.5	15.6	108.4	89.0	69.5	50.0	-	-
	67	135.1	14.2	135.1	127.0	108.0	89.0	70.0	-	124.6	15.4	124.6	123.8	104.4	84.9	65.5	-
	62	129.4	14.1	129.4	129.4	124.6	105.7	86.7	67.7	120.8	15.4	120.8	120.8	115.3	95.9	76.4	57.0
	57	127.6	14.1	127.6	127.6	126.8	107.8	88.8	69.8	119.2	15.4	119.2	119.2	118.6	99.1	79.7	60.2
5625	72	147.4	14.4	119.1	98.9	78.8	58.6	-	-	137.3	15.7	116.2	95.3	74.5	53.7	-	-
	67	138.8	14.2	138.8	134.7	115.3	95.2	75.0	-	128.1	15.5	128.1	128.1	111.9	91.0	70.2	-
	62	133.0	14.1	133.0	133.0	130.6	110.4	90.2	70.1	124.2	15.5	124.2	124.2	121.5	100.7	79.8	59.0
	57	131.0	14.1	131.0	131.0	130.7	110.5	90.3	70.1	122.6	15.5	122.6	122.6	122.3	101.5	80.6	59.8
6250	72	151.3	14.4	126.5	105.2	83.8	62.5	-	-	141.1	15.7	123.9	101.7	79.5	57.3	-	-
	67	142.5	14.2	142.5	142.5	122.7	101.3	80.0	-	131.7	15.5	131.7	131.7	119.4	97.2	74.9	-
	62	136.5	14.2	136.5	136.5	136.5	115.2	93.8	72.5	127.6	15.5	127.6	127.6	127.6	105.4	83.2	61.0
	57	134.5	14.2	134.5	134.5	134.5	113.2	91.8	70.5	126.0	15.5	126.0	126.0	126.0	103.8	81.6	59.4

1. These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

XP078-150 Heating Capacities

XP078-150

Size (Tons)	Model	Air Over Evaporator Coil		Capacity[1] & kW	Outdoor Temperature (°F @ 72% RH)							
		CFM	DB (°F)		-10	0	10	20	30	40	50	60
078 (6.5)	XP	1950	55	MBH	18.7	29.2	39.8	50.3	60.9	71.4	81.9	92.5
				KW	4.8	4.9	5.1	5.2	5.4	5.5	5.7	5.8
			70	MBH	13.9	24.4	35.0	45.5	56.0	66.6	77.1	87.7
				KW	5.6	5.7	5.9	6.0	6.2	6.3	6.5	6.7
			80	MBH	11.6	22.1	32.6	43.2	53.7	64.3	74.8	85.3
				KW	6.4	6.5	6.7	6.8	7.0	7.1	7.3	7.4
		2600	55	MBH	21.8	32.3	42.9	53.4	64.0	74.5	85.1	95.6
				KW	4.2	4.3	4.5	4.6	4.8	4.9	5.1	5.2
			70	MBH	16.9	27.4	37.9	48.5	59.0	69.6	80.1	90.7
				KW	5.0	5.1	5.3	5.4	5.6	5.7	5.9	6.0
			80	MBH	14.7	25.2	35.8	46.3	56.8	67.4	77.9	88.5
				KW	5.8	6.0	6.1	6.3	6.4	6.6	6.7	6.9
		3250	55	MBH	22.9	33.5	44.0	54.6	65.1	75.6	86.2	96.7
				KW	3.9	4.0	4.2	4.3	4.5	4.6	4.8	4.9
			70	MBH	18.1	28.6	39.2	49.7	60.3	70.8	81.4	91.9
				KW	4.7	4.9	5.0	5.2	5.3	5.5	5.6	5.8
			80	MBH	15.8	26.3	36.9	47.4	58.0	68.5	79.0	89.6
				KW	5.5	5.6	5.8	6.0	6.1	6.3	6.4	6.6
090 (7.5)	XP	2250	55	MBH	19.0	31.5	43.9	56.4	68.8	81.3	93.8	106.2
				KW	5.0	5.2	5.4	5.6	5.9	6.1	6.3	6.5
			70	MBH	14.7	27.2	39.7	52.1	64.6	77.0	89.5	101.9
				KW	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5
			80	MBH	11.6	24.1	36.5	49.0	61.5	73.9	86.4	98.8
				KW	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.4
		3000	55	MBH	22.0	34.4	46.9	59.3	71.8	84.2	96.7	109.2
				KW	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
			70	MBH	17.7	30.2	42.6	55.1	67.5	80.0	92.5	104.9
				KW	5.4	5.6	5.8	6.0	6.3	6.5	6.7	6.9
			80	MBH	14.5	27.0	39.4	51.9	64.4	76.8	89.3	101.7
				KW	6.2	6.4	6.7	6.9	7.1	7.3	7.5	7.7
		3750	55	MBH	21.7	34.2	46.6	59.1	71.5	84.0	96.5	108.9
				KW	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4
			70	MBH	17.4	29.9	42.3	54.8	67.3	79.7	92.2	104.6
				KW	5.0	5.2	5.4	5.6	5.8	6.0	6.3	6.5
			80	MBH	14.3	26.8	39.2	51.7	64.1	76.6	89.1	101.5
				KW	5.8	6.1	6.3	6.5	6.7	6.9	7.1	7.3
102 (8.5)	XP	2550	55	MBH	9.4	22.3	35.1	48.0	60.8	73.7	86.5	99.4
				KW	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3
			70	MBH	12.2	25.1	37.9	50.8	63.7	76.5	89.4	102.2
				KW	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5
			80	MBH	11.1	24.0	36.8	49.7	62.5	75.4	88.2	101.1
				KW	6.9	7.1	7.3	7.5	7.7	7.9	8.2	8.4
		3400	55	MBH	14.9	27.8	40.6	53.5	66.3	79.2	92.0	104.9
				KW	4.3	4.5	4.7	4.9	5.2	5.4	5.6	5.8
			70	MBH	17.7	30.6	43.4	56.3	69.1	82.0	94.8	107.7
				KW	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0
			80	MBH	16.6	29.4	42.3	55.1	68.0	80.8	93.7	106.6
				KW	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8
		4250	55	MBH	17.2	30.1	42.9	55.8	68.6	81.5	94.3	107.2
				KW	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4
			70	MBH	20.0	32.9	45.7	58.6	71.4	84.3	97.1	110.0
				KW	5.2	5.4	5.6	5.9	6.1	6.3	6.5	6.7
			80	MBH	18.9	31.8	44.6	57.5	70.3	83.2	96.0	108.9
				KW	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5

XP078-150 (Continued)

Size (Tons)	Model	Air Over Evaporator Coil		Capacity[1] & kW	Outdoor Temperature (°F @ 72% RH)							
		CFM	DB (°F)		-10	0	10	20	30	40	50	60
120 (10)	XP	3000	55	MBH	14.5	29.4	44.3	59.1	74.0	88.9	103.7	118.6
				KW	5.9	6.0	6.2	6.4	6.5	6.7	6.9	7.0
			70	MBH	11.2	26.0	40.9	55.7	70.6	85.5	100.3	115.2
				KW	7.0	7.2	7.4	7.5	7.7	7.9	8.0	8.2
			80	MBH	7.8	22.7	37.6	52.4	67.3	82.1	97.0	111.9
				KW	7.9	8.1	8.3	8.4	8.6	8.8	8.9	9.1
		4000	55	MBH	24.6	39.5	54.3	69.2	84.1	98.9	113.8	128.7
				KW	5.5	5.7	5.8	6.0	6.2	6.3	6.5	6.6
			70	MBH	21.2	36.1	51.0	65.8	80.7	95.5	110.4	125.3
				KW	6.7	6.8	7.0	7.2	7.3	7.5	7.6	7.8
			80	MBH	17.9	32.8	47.6	62.5	77.4	92.2	107.1	122.0
				KW	7.6	7.7	7.9	8.1	8.2	8.4	8.5	8.7
		5000	55	MBH	21.2	36.0	50.9	65.8	80.6	95.5	110.3	125.2
				KW	5.0	5.2	5.3	5.5	5.6	5.8	6.0	6.1
			70	MBH	17.8	32.6	47.5	62.4	77.2	92.1	107.0	121.8
				KW	6.2	6.3	6.5	6.6	6.8	7.0	7.1	7.3
			80	MBH	14.4	29.3	44.2	59.0	73.9	88.8	103.6	118.5
				KW	7.0	7.2	7.4	7.5	7.7	7.9	8.0	8.2
150 (12.5)	XP	3750	55	MBH	26.2	45.3	64.5	83.6	102.7	121.9	141.0	160.1
				KW	8.0	8.4	8.8	9.2	9.6	10.0	10.4	10.8
			70	MBH	22.8	41.9	61.0	80.2	99.3	118.4	137.6	156.7
				KW	9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3
			80	MBH	19.5	38.7	57.8	76.9	96.1	115.2	134.3	153.5
				KW	10.7	11.1	11.5	11.9	12.3	12.7	13.1	13.5
		5000	55	MBH	34.3	53.4	72.6	91.7	110.8	130.0	149.1	168.2
				KW	7.2	7.6	8.0	8.4	8.8	9.2	9.6	10.0
			70	MBH	30.9	50.1	69.2	88.3	107.5	126.6	145.7	164.8
				KW	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.5
			80	MBH	27.6	46.7	65.8	85.0	104.1	123.2	142.4	161.5
				KW	9.9	10.3	10.7	11.1	11.5	11.9	12.3	12.7
		6250	55	MBH	36.3	55.5	74.6	93.7	112.8	132.0	151.1	170.2
				KW	6.8	7.2	7.6	8.0	8.4	8.8	9.2	9.6
			70	MBH	32.9	52.0	71.1	90.3	109.4	128.5	147.7	166.8
				KW	8.3	8.7	9.1	9.5	9.9	10.3	10.7	11.1
			80	MBH	29.6	48.8	67.9	87.0	106.2	125.3	144.4	163.6
				KW	9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3

1. These capacities do not include the supply air blower motor heat. For net capacity, add motor heat, MBh = 3.415 x kW.

Airflow Performance

ZH078-150 Side Duct Application

ZH078 (6.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive						Standard 1.5 HP & Drive								Hi Static 2 HP & Drive					
1800	751	0.22	813	0.43	872	0.62	929	0.78	985	0.93	1040	1.07	1095	1.20	1150	1.33	1206	1.46	1265	1.59
2000	776	0.35	838	0.56	897	0.75	954	0.92	1010	1.07	1064	1.20	1119	1.33	1175	1.46	1231	1.59	1289	1.72
2200	804	0.50	866	0.71	925	0.90	982	1.06	1038	1.21	1092	1.35	1147	1.48	1203	1.61	1259	1.73	1317	1.87
2400	835	0.66	897	0.87	956	1.06	1013	1.22	1069	1.37	1124	1.51	1178	1.64	1234	1.77	1290	1.90	1348	2.03
2600	869	0.84	931	1.05	990	1.24	1047	1.40	1103	1.55	1158	1.69	1212	1.82	1268	1.95	1324	2.07	1382	2.21
2800	906	1.03	968	1.25	1027	1.43	1084	1.60	1139	1.75	1194	1.89	1249	2.02	1304	2.14	1361	2.27	-	-
3000	945	1.25	1007	1.46	1066	1.65	1123	1.81	1179	1.96	1234	2.10	1288	2.23	-	-	-	-	-	-
3200	987	1.48	1048	1.69	1107	1.88	1165	2.04	1220	2.19	-	-	-	-	-	-	-	-	-	-
3400	1030	1.73	1092	1.94	1151	2.12	1208	2.29	-	-	-	-	-	-	-	-	-	-	-	-
															2 HP & Field Supplied Drive					

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH090 (7.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive				Standard 1.5 HP & Drive										Hi Static 3 HP & Drive					
2000	776	0.35	838	0.56	897	0.75	954	0.92	1010	1.07	1064	1.20	1119	1.33	1175	1.46	1231	1.59	1289	1.72
2200	804	0.50	866	0.71	925	0.90	982	1.06	1038	1.21	1092	1.35	1147	1.48	1203	1.61	1259	1.73	1317	1.87
2400	835	0.66	897	0.87	956	1.06	1013	1.22	1069	1.37	1124	1.51	1178	1.64	1234	1.77	1290	1.90	1348	2.03
2600	869	0.84	931	1.05	990	1.24	1047	1.40	1103	1.55	1158	1.69	1212	1.82	1268	1.95	1324	2.07	1382	2.21
2800	906	1.03	968	1.25	1027	1.43	1084	1.60	1139	1.75	1194	1.89	1249	2.02	1304	2.14	1361	2.27	1419	2.40
3000	945	1.25	1007	1.46	1066	1.65	1123	1.81	1179	1.96	1234	2.10	1288	2.23	1344	2.36	1400	2.48	1458	2.62
3200	987	1.48	1048	1.69	1107	1.88	1165	2.04	1220	2.19	1275	2.33	1330	2.46	1385	2.59	1442	2.71	1500	2.85
3400	1030	1.73	1092	1.94	1151	2.12	1208	2.29	1264	2.44	1319	2.58	1374	2.71	1429	2.84	1485	2.96	1544	3.10
3600	1076	1.99	1138	2.20	1197	2.39	1254	2.56	1310	2.71	1364	2.84	1419	2.97	1475	3.10	1531	3.23	1589	3.36
3800	1124	2.27	1185	2.48	1245	2.67	1302	2.84	1357	2.99	1412	3.12	1467	3.25	1522	3.38	-	-	-	-
											3 HP & Field Supplied Drive									

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH102 (8.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive				Standard 2 HP & Drive								Hi Static 3 HP & Drive							
2200	654	0.32	706	0.53	755	0.73	803	0.92	849	1.10	893	1.27	937	1.44	979	1.62	1020	1.79	1061	1.96
2400	664	0.43	716	0.64	765	0.83	813	1.02	859	1.20	904	1.38	947	1.55	989	1.72	1030	1.89	1071	2.07
2600	675	0.53	726	0.74	776	0.94	824	1.12	870	1.30	914	1.48	957	1.65	1000	1.82	1041	1.99	1082	2.17
2800	686	0.63	738	0.84	787	1.04	835	1.23	881	1.41	925	1.58	969	1.76	1011	1.93	1052	2.10	1093	2.27
3000	699	0.75	750	0.96	800	1.16	847	1.34	893	1.52	938	1.70	981	1.87	1024	2.04	1065	2.21	1106	2.39
3200	713	0.88	764	1.09	814	1.28	861	1.47	907	1.65	952	1.83	995	2.00	1037	2.17	1079	2.34	1119	2.52
3400	728	1.02	779	1.23	829	1.43	877	1.61	923	1.79	967	1.97	1010	2.14	1053	2.31	1094	2.48	1135	2.66
3600	745	1.18	796	1.39	846	1.59	893	1.77	939	1.95	984	2.13	1027	2.30	1069	2.47	1111	2.64	1152	2.82
3800	763	1.36	815	1.57	864	1.76	912	1.95	958	2.13	1002	2.31	1046	2.48	1088	2.65	1129	2.82	1170	3.00
4000	783	1.55	835	1.76	884	1.96	932	2.15	978	2.33	1022	2.50	1066	2.67	1108	2.84	1149	3.02	1190	3.19
4200	805	1.77	856	1.98	906	2.17	953	2.36	999	2.54	1044	2.72	1087	2.89	1129	3.06	1171	3.23	1211	3.41
															3 HP & Field Supplied Drive					

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH120 (10 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive						Standard 2 HP & Drive								Hi Static 3 HP & Drive					
2600	675	0.53	726	0.74	776	0.94	824	1.12	870	1.30	914	1.48	957	1.65	1000	1.82	1041	1.99	1082	2.17
2800	686	0.63	738	0.84	787	1.04	835	1.23	881	1.41	925	1.58	969	1.76	1011	1.93	1052	2.10	1093	2.27
3000	699	0.75	750	0.96	800	1.16	847	1.34	893	1.52	938	1.70	981	1.87	1024	2.04	1065	2.21	1106	2.39
3200	713	0.88	764	1.09	814	1.28	861	1.47	907	1.65	952	1.83	995	2.00	1037	2.17	1079	2.34	1119	2.52
3400	728	1.02	779	1.23	829	1.43	877	1.61	923	1.79	967	1.97	1010	2.14	1053	2.31	1094	2.48	1135	2.66
3600	745	1.18	796	1.39	846	1.59	893	1.77	939	1.95	984	2.13	1027	2.30	1069	2.47	1111	2.64	1152	2.82
3800	763	1.36	815	1.57	864	1.76	912	1.95	958	2.13	1002	2.31	1046	2.48	1088	2.65	1129	2.82	1170	3.00
4000	783	1.55	835	1.76	884	1.96	932	2.15	978	2.33	1022	2.50	1066	2.67	1108	2.84	1149	3.02	1190	3.19
4200	805	1.77	856	1.98	906	2.17	953	2.36	999	2.54	1044	2.72	1087	2.89	1129	3.06	1171	3.23	1211	3.41
4400	828	2.00	879	2.21	929	2.41	976	2.59	1022	2.77	1067	2.95	1110	3.12	1152	3.29	-	-	-	-
4600	852	2.25	904	2.46	953	2.66	1001	2.85	1047	3.03	1092	3.20	1135	3.37	-	-	-	-	-	-
4800	879	2.52	930	2.73	980	2.93	1027	3.12	1073	3.30	-	-	-	-	-	-	-	-	-	-
5000	906	2.81	958	3.02	1007	3.22	1055	3.41	-	-	-	-	-	-	-	-	-	-	-	-
											3 HP & Field Supplied Drive									

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH150 (12.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP & Field Supplied Drive								Standard 3 HP & Drive											
3200	713	0.88	764	1.09	814	1.28	861	1.47	907	1.65	952	1.83	995	2.00	1037	2.17	1079	2.34	1119	2.52
3400	728	1.02	779	1.23	829	1.43	877	1.61	923	1.79	967	1.97	1010	2.14	1053	2.31	1094	2.48	1135	2.66
3600	745	1.18	796	1.39	846	1.59	893	1.77	939	1.95	984	2.13	1027	2.30	1069	2.47	1111	2.64	1152	2.82
3800	763	1.36	815	1.57	864	1.76	912	1.95	958	2.13	1002	2.31	1046	2.48	1088	2.65	1129	2.82	1170	3.00
4000	783	1.55	835	1.76	884	1.96	932	2.15	978	2.33	1022	2.50	1066	2.67	1108	2.84	1149	3.02	1190	3.19
4200	805	1.77	856	1.98	906	2.17	953	2.36	999	2.54	1044	2.72	1087	2.89	1129	3.06	1171	3.23	1211	3.41
4400	828	2.00	879	2.21	929	2.41	976	2.59	1022	2.77	1067	2.95	1110	3.12	1152	3.29	1194	3.46	1235	3.64
4600	852	2.25	904	2.46	953	2.66	1001	2.85	1047	3.03	1092	3.20	1135	3.37	1177	3.54	1219	3.72	1259	3.89
4800	879	2.52	930	2.73	980	2.93	1027	3.12	1073	3.30	1118	3.47	1161	3.65	1203	3.82	1245	3.99	1285	4.16
5000	906	2.81	958	3.02	1007	3.22	1055	3.41	1101	3.59	1146	3.76	1189	3.94	1231	4.11	1273	4.28	1313	4.45
5200	936	3.12	987	3.33	1037	3.53	1084	3.72	1130	3.90	1175	4.07	1218	4.24	1260	4.42	1302	4.59	1343	4.76
5400	966	3.45	1018	3.66	1067	3.86	1115	4.05	1161	4.23	1206	4.40	1249	4.57	1291	4.74	1333	4.91	1373	5.09
5600	999	3.80	1050	4.01	1100	4.20	1147	4.39	1193	4.57	1238	4.75	1281	4.92	1323	5.09	1365	5.26	1405	5.44
5800	1032	4.16	1084	4.37	1133	4.57	1181	4.75	1227	4.93	1271	5.11	1315	5.28	1357	5.45	1398	5.62	-	-
6000	1067	4.54	1119	4.75	1168	4.95	1216	5.13	1262	5.31	1306	5.49	1350	5.66	-	-	-	-	-	-
6200	1103	4.94	1155	5.15	1204	5.34	1252	5.53	1298	5.71	-	-	-	-	-	-	-	-	-	-
	Hi Static 5 HP & Drive								5 HP & Field Supplied Drive											

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH078-150 Bottom Duct Application

ZH078 (6.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive				Standard 1.5 HP & Drive						Hi Static 2 HP & Drive									
1800	775	0.31	850	0.53	924	0.72	998	0.89	1072	1.05	1147	1.20	1224	1.35	1303	1.51	1384	1.69	1469	1.89
2000	803	0.45	878	0.67	952	0.86	1026	1.03	1100	1.19	1175	1.34	1252	1.49	1331	1.65	1412	1.83	1497	2.03
2200	838	0.60	913	0.82	986	1.01	1060	1.19	1134	1.34	1210	1.49	1286	1.65	1365	1.81	1447	1.98	1532	2.18
2400	878	0.78	953	1.00	1027	1.19	1100	1.36	1174	1.52	1250	1.67	1327	1.82	1405	1.98	1487	2.16	-	-
2600	923	0.98	997	1.20	1071	1.39	1145	1.56	1219	1.72	1294	1.87	1371	2.02	1450	2.18	-	-	-	-
2800	971	1.20	1046	1.42	1119	1.61	1193	1.78	1267	1.94	1343	2.09	1419	2.24	-	-	-	-	-	-
3000	1023	1.44	1097	1.66	1171	1.85	1245	2.03	1319	2.18	-	-	-	-	-	-	-	-	-	-
3200	1077	1.71	1151	1.93	1225	2.12	1299	2.29	-	-	-	-	-	-	-	-	-	-	-	-
3400	1133	1.99	1208	2.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
									2 HP & Field Supplied Drive											

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH090 (7.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive				Standard 1.5 HP & Drive						Hi Static 3 HP & Drive									
2000	803	0.45	878	0.67	952	0.86	1026	1.03	1100	1.19	1175	1.34	1252	1.49	1331	1.65	1412	1.83	1497	2.03
2200	838	0.60	913	0.82	986	1.01	1060	1.19	1134	1.34	1210	1.49	1286	1.65	1365	1.81	1447	1.98	1532	2.18
2400	878	0.78	953	1.00	1027	1.19	1100	1.36	1174	1.52	1250	1.67	1327	1.82	1405	1.98	1487	2.16	1572	2.36
2600	923	0.98	997	1.20	1071	1.39	1145	1.56	1219	1.72	1294	1.87	1371	2.02	1450	2.18	1532	2.36	1617	2.56
2800	971	1.20	1046	1.42	1119	1.61	1193	1.78	1267	1.94	1343	2.09	1419	2.24	1498	2.40	1580	2.58	1665	2.78
3000	1023	1.44	1097	1.66	1171	1.85	1245	2.03	1319	2.18	1394	2.33	1471	2.49	1550	2.65	1632	2.82	1717	3.02
3200	1077	1.71	1151	1.93	1225	2.12	1299	2.29	1373	2.45	1448	2.60	1525	2.75	1604	2.91	1686	3.09	1771	3.29
3400	1133	1.99	1208	2.21	1282	2.41	1356	2.58	1430	2.73	1505	2.88	1582	3.04	1661	3.20	1742	3.37	-	-
3600	1192	2.30	1267	2.52	1341	2.71	1414	2.88	1489	3.04	1564	3.19	1641	3.34	-	-	-	-	-	-
3800	1253	2.63	1327	2.85	1401	3.04	1475	3.21	1549	3.37	-	-	-	-	-	-	-	-	-	-
											3 HP & Field Supplied Drive									

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH102 (8.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive		Standard 2 HP & Drive								Hi Static 3 HP & Drive									
2200	685	0.59	739	0.74	791	0.88	841	1.01	889	1.14	936	1.27	981	1.39	1025	1.51	1069	1.63	1111	1.75
2400	702	0.70	756	0.85	808	0.99	858	1.12	906	1.25	953	1.37	999	1.49	1043	1.62	1086	1.74	1129	1.86
2600	722	0.83	776	0.97	828	1.11	878	1.25	926	1.37	973	1.50	1018	1.62	1063	1.74	1106	1.86	1149	1.99
2800	744	0.97	798	1.12	850	1.26	900	1.39	949	1.52	995	1.64	1041	1.76	1085	1.88	1128	2.00	1171	2.13
3000	769	1.13	823	1.28	875	1.42	925	1.55	974	1.68	1020	1.80	1066	1.92	1110	2.05	1153	2.17	1196	2.29
3200	797	1.32	851	1.46	903	1.60	953	1.74	1001	1.86	1048	1.99	1093	2.11	1138	2.23	1181	2.35	1224	2.48
3400	828	1.52	882	1.67	934	1.81	983	1.94	1032	2.07	1078	2.19	1124	2.32	1168	2.44	1212	2.56	1254	2.68
3600	861	1.75	915	1.90	967	2.04	1017	2.17	1065	2.30	1112	2.42	1157	2.54	1201	2.67	1245	2.79	1287	2.91
3800	897	2.00	951	2.15	1002	2.29	1052	2.42	1101	2.55	1147	2.67	1193	2.80	1237	2.92	1280	3.04	1323	3.16
4000	935	2.27	989	2.42	1041	2.56	1091	2.69	1139	2.82	1186	2.95	1231	3.07	1275	3.19	1319	3.31	1362	3.43
4200	976	2.57	1030	2.72	1082	2.86	1132	2.99	1180	3.12	1227	3.24	1272	3.36	-	-	-	-	-	-
											3 HP & Field Supplied Drive									

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH120 (10 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive				Standard 2 HP & Drive								Hi Static 3 HP & Drive							
2600	722	0.83	776	0.97	828	1.11	878	1.25	926	1.37	973	1.50	1018	1.62	1063	1.74	1106	1.86	1149	1.99
2800	744	0.97	798	1.12	850	1.26	900	1.39	949	1.52	995	1.64	1041	1.76	1085	1.88	1128	2.00	1171	2.13
3000	769	1.13	823	1.28	875	1.42	925	1.55	974	1.68	1020	1.80	1066	1.92	1110	2.05	1153	2.17	1196	2.29
3200	797	1.32	851	1.46	903	1.60	953	1.74	1001	1.86	1048	1.99	1093	2.11	1138	2.23	1181	2.35	1224	2.48
3400	828	1.52	882	1.67	934	1.81	983	1.94	1032	2.07	1078	2.19	1124	2.32	1168	2.44	1212	2.56	1254	2.68
3600	861	1.75	915	1.90	967	2.04	1017	2.17	1065	2.30	1112	2.42	1157	2.54	1201	2.67	1245	2.79	1287	2.91
3800	897	2.00	951	2.15	1002	2.29	1052	2.42	1101	2.55	1147	2.67	1193	2.80	1237	2.92	1280	3.04	1323	3.16
4000	935	2.27	989	2.42	1041	2.56	1091	2.69	1139	2.82	1186	2.95	1231	3.07	1275	3.19	1319	3.31	1362	3.43
4200	976	2.57	1030	2.72	1082	2.86	1132	2.99	1180	3.12	1227	3.24	1272	3.36	-	-	-	-	-	-
4400	1019	2.88	1073	3.03	1125	3.17	1175	3.30	1223	3.43	-	-	-	-	-	-	-	-	-	-
4600	1065	3.22	1119	3.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3 HP & Field Supplied Drive																	

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZH150 (12.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP & Field Supplied Drive				Standard 3 HP & Drive										Hi Static 5 HP & Drive					
3200	797	1.32	851	1.46	903	1.60	953	1.74	1001	1.86	1048	1.99	1093	2.11	1138	2.23	1181	2.35	1224	2.48
3400	828	1.52	882	1.67	934	1.81	983	1.94	1032	2.07	1078	2.19	1124	2.32	1168	2.44	1212	2.56	1254	2.68
3600	861	1.75	915	1.90	967	2.04	1017	2.17	1065	2.30	1112	2.42	1157	2.54	1201	2.67	1245	2.79	1287	2.91
3800	897	2.00	951	2.15	1002	2.29	1052	2.42	1101	2.55	1147	2.67	1193	2.80	1237	2.92	1280	3.04	1323	3.16
4000	935	2.27	989	2.42	1041	2.56	1091	2.69	1139	2.82	1186	2.95	1231	3.07	1275	3.19	1319	3.31	1362	3.43
4200	976	2.57	1030	2.72	1082	2.86	1132	2.99	1180	3.12	1227	3.24	1272	3.36	1316	3.48	1360	3.60	1402	3.73
4400	1019	2.88	1073	3.03	1125	3.17	1175	3.30	1223	3.43	1270	3.55	1315	3.67	1360	3.80	1403	3.92	1446	4.04
4600	1065	3.22	1119	3.36	1171	3.50	1221	3.64	1269	3.76	1316	3.89	1361	4.01	1405	4.13	1449	4.25	1491	4.38
4800	1113	3.57	1167	3.72	1219	3.86	1269	3.99	1317	4.12	1364	4.24	1409	4.36	1453	4.48	1497	4.61	1540	4.73
5000	1163	3.94	1217	4.09	1269	4.23	1319	4.36	1367	4.49	1414	4.62	1459	4.74	1504	4.86	1547	4.98	1590	5.10
5200	1216	4.34	1270	4.48	1321	4.62	1371	4.76	1420	4.88	1466	5.01	1512	5.13	1556	5.25	1600	5.37	1642	5.50
5400	1270	4.75	1324	4.89	1376	5.03	1426	5.17	1474	5.29	1521	5.42	1566	5.54	1611	5.66	-	-	-	-
5600	1327	5.17	1381	5.32	1433	5.46	1483	5.59	1531	5.72	-	-	-	-	-	-	-	-	-	-
5800	1385	5.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

5 HP & Field Supplied Drive

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR078-150 Side Duct Application

ZR078 (6.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive						Standard 1.5 HP & Drive								Hi Static 2 HP & Drive					
1800	778	0.37	838	0.56	895	0.73	951	0.88	1005	1.01	1059	1.13	1112	1.25	1166	1.36	1221	1.47	1278	1.59
2000	803	0.50	864	0.69	921	0.85	977	1.00	1031	1.14	1085	1.26	1138	1.37	1192	1.49	1247	1.60	1304	1.72
2200	833	0.64	893	0.83	951	1.00	1006	1.14	1061	1.28	1114	1.40	1168	1.51	1221	1.63	1276	1.74	1333	1.86
2400	866	0.80	926	0.99	984	1.15	1039	1.30	1094	1.43	1147	1.56	1201	1.67	1254	1.78	1309	1.90	1366	2.02
2600	902	0.97	962	1.16	1020	1.33	1076	1.47	1130	1.61	1183	1.73	1237	1.85	1291	1.96	1346	2.07	1402	2.19
2800	941	1.16	1002	1.35	1059	1.52	1115	1.67	1169	1.80	1222	1.92	1276	2.04	1330	2.15	1385	2.26	-	-
3000	983	1.37	1043	1.56	1101	1.73	1157	1.88	1211	2.01	1264	2.13	1318	2.25	-	-	-	-	-	-
3200	1028	1.60	1088	1.79	1145	1.95	1201	2.10	1255	2.24	-	-	-	-	-	-	-	-	-	-
3400	1074	1.84	1134	2.03	1192	2.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
											2 HP & Field Supplied Drive									

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR090 (7.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive						Standard 1.5 HP & Drive						Hi Static 3 HP & Drive							
2000	803	0.50	864	0.69	921	0.85	977	1.00	1031	1.14	1085	1.26	1138	1.37	1192	1.49	1247	1.60	1304	1.72
2200	833	0.64	893	0.83	951	1.00	1006	1.14	1061	1.28	1114	1.40	1168	1.51	1221	1.63	1276	1.74	1333	1.86
2400	866	0.80	926	0.99	984	1.15	1039	1.30	1094	1.43	1147	1.56	1201	1.67	1254	1.78	1309	1.90	1366	2.02
2600	902	0.97	962	1.16	1020	1.33	1076	1.47	1130	1.61	1183	1.73	1237	1.85	1291	1.96	1346	2.07	1402	2.19
2800	941	1.16	1002	1.35	1059	1.52	1115	1.67	1169	1.80	1222	1.92	1276	2.04	1330	2.15	1385	2.26	1442	2.38
3000	983	1.37	1043	1.56	1101	1.73	1157	1.88	1211	2.01	1264	2.13	1318	2.25	1372	2.36	1427	2.47	1483	2.59
3200	1028	1.60	1088	1.79	1145	1.95	1201	2.10	1255	2.24	1309	2.36	1362	2.47	1416	2.59	1471	2.70	1528	2.82
3400	1074	1.84	1134	2.03	1192	2.20	1248	2.35	1302	2.48	1355	2.60	1409	2.72	1463	2.83	1518	2.94	1574	3.06
3600	1123	2.10	1183	2.29	1241	2.46	1297	2.61	1351	2.74	1404	2.86	1458	2.98	1512	3.09	1567	3.21	1623	3.32
3800	1174	2.38	1234	2.57	1292	2.74	1348	2.88	1402	3.02	1455	3.14	1509	3.26	1562	3.37	-	-	-	-
									3 HP & Field Supplied Drive											

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR102 (8.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive		Standard 2 HP & Drive										Hi Static 3 HP & Drive							
2200	684	0.48	735	0.67	783	0.84	829	1.01	874	1.17	918	1.32	960	1.48	1001	1.63	1041	1.78	1081	1.94
2400	695	0.58	745	0.76	793	0.94	840	1.11	885	1.27	928	1.42	970	1.57	1011	1.73	1052	1.88	1091	2.04
2600	706	0.67	756	0.86	805	1.04	851	1.20	896	1.36	939	1.52	981	1.67	1023	1.82	1063	1.98	1103	2.13
2800	719	0.78	769	0.96	817	1.14	863	1.31	908	1.47	952	1.62	994	1.78	1035	1.93	1075	2.08	1115	2.24
3000	732	0.89	782	1.08	831	1.25	877	1.42	922	1.58	965	1.74	1007	1.89	1049	2.04	1089	2.19	1128	2.35
3200	747	1.02	797	1.21	846	1.38	892	1.55	937	1.71	980	1.86	1023	2.02	1064	2.17	1104	2.32	1144	2.48
3400	764	1.16	814	1.35	862	1.53	909	1.69	954	1.85	997	2.01	1039	2.16	1080	2.31	1121	2.47	1160	2.62
3600	783	1.33	833	1.51	881	1.69	927	1.86	972	2.02	1016	2.17	1058	2.32	1099	2.48	1139	2.63	1179	2.79
3800	803	1.51	853	1.69	901	1.87	948	2.04	992	2.20	1036	2.35	1078	2.50	1119	2.66	1159	2.81	1199	2.97
4000	825	1.71	875	1.89	923	2.07	970	2.23	1014	2.39	1058	2.55	1100	2.70	1141	2.86	1181	3.01	1221	3.16
4200	849	1.92	899	2.11	947	2.29	993	2.45	1038	2.61	1082	2.77	1124	2.92	1165	3.07	1205	3.23	1245	3.38
													3 HP & Field Supplied Drive							

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR120 (10 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive				Standard 2 HP & Drive										Hi Static 3 HP & Drive					
2600	706	0.67	756	0.86	805	1.04	851	1.20	896	1.36	939	1.52	981	1.67	1023	1.82	1063	1.98	1103	2.13
2800	719	0.78	769	0.96	817	1.14	863	1.31	908	1.47	952	1.62	994	1.78	1035	1.93	1075	2.08	1115	2.24
3000	732	0.89	782	1.08	831	1.25	877	1.42	922	1.58	965	1.74	1007	1.89	1049	2.04	1089	2.19	1128	2.35
3200	747	1.02	797	1.21	846	1.38	892	1.55	937	1.71	980	1.86	1023	2.02	1064	2.17	1104	2.32	1144	2.48
3400	764	1.16	814	1.35	862	1.53	909	1.69	954	1.85	997	2.01	1039	2.16	1080	2.31	1121	2.47	1160	2.62
3600	783	1.33	833	1.51	881	1.69	927	1.86	972	2.02	1016	2.17	1058	2.32	1099	2.48	1139	2.63	1179	2.79
3800	803	1.51	853	1.69	901	1.87	948	2.04	992	2.20	1036	2.35	1078	2.50	1119	2.66	1159	2.81	1199	2.97
4000	825	1.71	875	1.89	923	2.07	970	2.23	1014	2.39	1058	2.55	1100	2.70	1141	2.86	1181	3.01	1221	3.16
4200	849	1.92	899	2.11	947	2.29	993	2.45	1038	2.61	1082	2.77	1124	2.92	1165	3.07	1205	3.23	1245	3.38
4400	874	2.16	924	2.35	972	2.52	1019	2.69	1064	2.85	1107	3.01	1149	3.16	1190	3.31	-	-	-	-
4600	901	2.42	952	2.61	1000	2.78	1046	2.95	1091	3.11	1134	3.26	1177	3.42	-	-	-	-	-	-
4800	930	2.70	981	2.88	1029	3.06	1075	3.23	1120	3.39	-	-	-	-	-	-	-	-	-	-
5000	961	2.99	1011	3.18	1059	3.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-
									3 HP & Field Supplied Drive											

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR150 (12.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP & Field Supplied Drive						Standard 3 HP & Drive													
3200	747	1.02	797	1.21	846	1.38	892	1.55	937	1.71	980	1.86	1023	2.02	1064	2.17	1104	2.32	1144	2.48
3400	764	1.16	814	1.35	862	1.53	909	1.69	954	1.85	997	2.01	1039	2.16	1080	2.31	1121	2.47	1160	2.62
3600	783	1.33	833	1.51	881	1.69	927	1.86	972	2.02	1016	2.17	1058	2.32	1099	2.48	1139	2.63	1179	2.79
3800	803	1.51	853	1.69	901	1.87	948	2.04	992	2.20	1036	2.35	1078	2.50	1119	2.66	1159	2.81	1199	2.97
4000	825	1.71	875	1.89	923	2.07	970	2.23	1014	2.39	1058	2.55	1100	2.70	1141	2.86	1181	3.01	1221	3.16
4200	849	1.92	899	2.11	947	2.29	993	2.45	1038	2.61	1082	2.77	1124	2.92	1165	3.07	1205	3.23	1245	3.38
4400	874	2.16	924	2.35	972	2.52	1019	2.69	1064	2.85	1107	3.01	1149	3.16	1190	3.31	1231	3.47	1270	3.62
4600	901	2.42	952	2.61	1000	2.78	1046	2.95	1091	3.11	1134	3.26	1177	3.42	1218	3.57	1258	3.72	1298	3.88
4800	930	2.70	981	2.88	1029	3.06	1075	3.23	1120	3.39	1163	3.54	1206	3.69	1247	3.85	1287	4.00	1327	4.16
5000	961	2.99	1011	3.18	1059	3.35	1106	3.52	1151	3.68	1194	3.84	1236	3.99	1277	4.14	1318	4.29	1357	4.45
5200	993	3.31	1043	3.49	1092	3.67	1138	3.84	1183	4.00	1226	4.15	1269	4.30	1310	4.46	1350	4.61	1390	4.77
5400	1027	3.64	1077	3.83	1126	4.00	1172	4.17	1217	4.33	1260	4.48	1302	4.64	1344	4.79	1384	4.94	1424	5.10
5600	1063	3.99	1113	4.18	1161	4.35	1207	4.52	1252	4.68	1296	4.84	1338	4.99	1379	5.14	1419	5.29	1459	5.45
5800	1100	4.36	1150	4.55	1198	4.72	1244	4.89	1289	5.05	1333	5.20	1375	5.36	1416	5.51	1456	5.66	-	-
6000	1138	4.75	1188	4.93	1237	5.11	1283	5.28	1328	5.44	1371	5.59	1413	5.74	-	-	-	-	-	-
6200	1178	5.15	1228	5.34	1277	5.51	1323	5.68	-	-	-	-	-	-	-	-	-	-	-	-
	Hi Static 5 HP & Drive				5 HP & Field Supplied Drive															

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR078-150 Bottom Duct Application

ZR078 (6.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive				Standard 1.5 HP & Drive						Hi Static 2 HP & Drive									
1800	801	0.45	874	0.65	946	0.82	1018	0.97	1090	1.11	1163	1.25	1238	1.38	1315	1.52	1395	1.68	1477	1.86
2000	831	0.59	903	0.78	975	0.95	1047	1.10	1119	1.24	1193	1.38	1267	1.51	1344	1.66	1424	1.81	1507	1.99
2200	867	0.74	940	0.93	1012	1.10	1084	1.25	1156	1.39	1229	1.53	1304	1.66	1381	1.81	1461	1.96	1543	2.14
2400	910	0.91	983	1.10	1055	1.27	1126	1.43	1199	1.57	1272	1.70	1347	1.84	1424	1.98	1503	2.14	-	-
2600	957	1.10	1030	1.30	1102	1.47	1174	1.62	1246	1.76	1320	1.89	1394	2.03	1471	2.17	-	-	-	-
2800	1009	1.32	1082	1.51	1154	1.69	1225	1.84	1298	1.98	1371	2.11	1446	2.25	-	-	-	-	-	-
3000	1064	1.56	1137	1.75	1208	1.92	1280	2.08	1353	2.22	-	-	-	-	-	-	-	-	-	-
3200	1122	1.82	1194	2.02	1266	2.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3400	1182	2.10	1254	2.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					2 HP & Field Supplied Drive															

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR090 (7.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive		Standard 1.5 HP & Drive								Hi Static 3 HP & Drive									
2000	831	0.59	903	0.78	975	0.95	1047	1.10	1119	1.24	1193	1.38	1267	1.51	1344	1.66	1424	1.81	1507	1.99
2200	867	0.74	940	0.93	1012	1.10	1084	1.25	1156	1.39	1229	1.53	1304	1.66	1381	1.81	1461	1.96	1543	2.14
2400	910	0.91	983	1.10	1055	1.27	1126	1.43	1199	1.57	1272	1.70	1347	1.84	1424	1.98	1503	2.14	1586	2.31
2600	957	1.10	1030	1.30	1102	1.47	1174	1.62	1246	1.76	1320	1.89	1394	2.03	1471	2.17	1551	2.33	1634	2.51
2800	1009	1.32	1082	1.51	1154	1.69	1225	1.84	1298	1.98	1371	2.11	1446	2.25	1523	2.39	1602	2.55	1685	2.73
3000	1064	1.56	1137	1.75	1208	1.92	1280	2.08	1353	2.22	1426	2.35	1501	2.49	1578	2.63	1657	2.79	1740	2.96
3200	1122	1.82	1194	2.02	1266	2.19	1338	2.34	1410	2.48	1484	2.61	1559	2.75	1636	2.89	1715	3.05	1798	3.23
3400	1182	2.10	1254	2.30	1326	2.47	1398	2.62	1471	2.76	1544	2.90	1619	3.03	1696	3.17	1775	3.33	-	-
3600	1244	2.41	1317	2.60	1389	2.77	1461	2.93	1533	3.07	1606	3.20	1681	3.33	-	-	-	-	-	-
3800	1308	2.73	1381	2.93	1453	3.10	1525	3.25	1597	3.39	-	-	-	-	-	-	-	-	-	-
									3 HP & Field Supplied Drive											

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR102 (8.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive		Standard 2 HP & Drive								Hi Static 3 HP & Drive									
2200	715	0.72	768	0.85	818	0.98	867	1.09	914	1.21	960	1.32	1004	1.43	1047	1.53	1089	1.64	1131	1.75
2400	734	0.83	786	0.96	837	1.08	886	1.20	933	1.31	978	1.42	1022	1.53	1066	1.64	1108	1.75	1150	1.86
2600	755	0.95	808	1.08	858	1.20	907	1.32	954	1.44	1000	1.55	1044	1.65	1087	1.76	1129	1.87	1171	1.98
2800	779	1.09	832	1.22	882	1.35	931	1.46	978	1.58	1024	1.69	1068	1.80	1111	1.90	1153	2.01	1195	2.12
3000	806	1.25	859	1.38	910	1.51	958	1.63	1005	1.74	1051	1.85	1095	1.96	1138	2.07	1181	2.17	1222	2.28
3200	837	1.44	889	1.57	940	1.69	989	1.81	1036	1.93	1081	2.04	1125	2.14	1168	2.25	1211	2.36	1252	2.47
3400	870	1.65	922	1.78	973	1.90	1022	2.02	1069	2.13	1114	2.24	1158	2.35	1202	2.46	1244	2.57	1286	2.68
3600	906	1.88	959	2.01	1009	2.13	1058	2.25	1105	2.36	1150	2.47	1195	2.58	1238	2.69	1280	2.80	1322	2.91
3800	945	2.13	998	2.26	1048	2.38	1097	2.50	1144	2.61	1190	2.72	1234	2.83	1277	2.94	1319	3.05	1361	3.16
4000	987	2.40	1040	2.53	1090	2.66	1139	2.78	1186	2.89	1231	3.00	1276	3.11	1319	3.21	1361	3.32	1403	3.43
4200	1032	2.70	1084	2.83	1135	2.95	1184	3.07	1231	3.18	1276	3.29	1320	3.40	-	-	-	-	-	-
											3 HP & Field Supplied Drive									

1. Blower performance includes gas heat exchangers and 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR120 (10 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive		Standard 2 HP & Drive								Hi Static 3 HP & Drive									
2600	755	0.95	808	1.08	858	1.20	907	1.32	954	1.44	1000	1.55	1044	1.65	1087	1.76	1129	1.87	1171	1.98
2800	779	1.09	832	1.22	882	1.35	931	1.46	978	1.58	1024	1.69	1068	1.80	1111	1.90	1153	2.01	1195	2.12
3000	806	1.25	859	1.38	910	1.51	958	1.63	1005	1.74	1051	1.85	1095	1.96	1138	2.07	1181	2.17	1222	2.28
3200	837	1.44	889	1.57	940	1.69	989	1.81	1036	1.93	1081	2.04	1125	2.14	1168	2.25	1211	2.36	1252	2.47
3400	870	1.65	922	1.78	973	1.90	1022	2.02	1069	2.13	1114	2.24	1158	2.35	1202	2.46	1244	2.57	1286	2.68
3600	906	1.88	959	2.01	1009	2.13	1058	2.25	1105	2.36	1150	2.47	1195	2.58	1238	2.69	1280	2.80	1322	2.91
3800	945	2.13	998	2.26	1048	2.38	1097	2.50	1144	2.61	1190	2.72	1234	2.83	1277	2.94	1319	3.05	1361	3.16
4000	987	2.40	1040	2.53	1090	2.66	1139	2.78	1186	2.89	1231	3.00	1276	3.11	1319	3.21	1361	3.32	1403	3.43
4200	1032	2.70	1084	2.83	1135	2.95	1184	3.07	1231	3.18	1276	3.29	1320	3.40	-	-	-	-	-	-
4400	1079	3.01	1132	3.15	1182	3.27	1231	3.39	-	-	-	-	-	-	-	-	-	-	-	-
4600	1129	3.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3 HP & Field Supplied Drive																			

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

ZR150 (12.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP & Field Supplied Drive		Standard 3 HP & Drive										Hi Static 5 HP & Drive							
3200	837	1.44	889	1.57	940	1.69	989	1.81	1036	1.93	1081	2.04	1125	2.14	1168	2.25	1211	2.36	1252	2.47
3400	870	1.65	922	1.78	973	1.90	1022	2.02	1069	2.13	1114	2.24	1158	2.35	1202	2.46	1244	2.57	1286	2.68
3600	906	1.88	959	2.01	1009	2.13	1058	2.25	1105	2.36	1150	2.47	1195	2.58	1238	2.69	1280	2.80	1322	2.91
3800	945	2.13	998	2.26	1048	2.38	1097	2.50	1144	2.61	1190	2.72	1234	2.83	1277	2.94	1319	3.05	1361	3.16
4000	987	2.40	1040	2.53	1090	2.66	1139	2.78	1186	2.89	1231	3.00	1276	3.11	1319	3.21	1361	3.32	1403	3.43
4200	1032	2.70	1084	2.83	1135	2.95	1184	3.07	1231	3.18	1276	3.29	1320	3.40	1364	3.51	1406	3.62	1447	3.73
4400	1079	3.01	1132	3.15	1182	3.27	1231	3.39	1278	3.50	1324	3.61	1368	3.72	1411	3.83	1453	3.93	1495	4.05
4600	1129	3.35	1182	3.48	1232	3.61	1281	3.72	1328	3.84	1374	3.95	1418	4.06	1461	4.16	1503	4.27	1545	4.38
4800	1182	3.71	1235	3.84	1285	3.96	1334	4.08	1381	4.20	1426	4.31	1471	4.41	1514	4.52	1556	4.63	1598	4.74
5000	1237	4.08	1290	4.22	1340	4.34	1389	4.46	1436	4.57	1481	4.68	1526	4.79	1569	4.90	1611	5.01	1653	5.12
5200	1294	4.48	1347	4.61	1398	4.74	1446	4.85	1493	4.97	1539	5.08	1583	5.19	1626	5.29	1669	5.40	1710	5.51
5400	1354	4.89	1407	5.03	1457	5.15	1506	5.27	1553	5.38	1599	5.49	1643	5.60	1686	5.71	-	-	-	-
5600	1416	5.33	1469	5.46	1519	5.58	1568	5.70	-	-	-	-	-	-	-	-	-	-	-	-
5800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5 HP & Field Supplied Drive																			

1. Blower performance includes gas heat exchangers and 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP078-150 Side Duct Application

XP078 (6.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive						Standard 1.5 HP & Drive								Hi Static 2 HP & Drive					
1800	754	0.24	814	0.44	872	0.63	929	0.79	985	0.93	1039	1.07	1094	1.20	1150	1.33	1207	1.45	1266	1.59
2000	779	0.37	840	0.58	898	0.76	955	0.92	1010	1.07	1065	1.21	1120	1.34	1176	1.46	1233	1.59	1292	1.72
2200	809	0.52	870	0.73	928	0.91	985	1.07	1040	1.22	1095	1.36	1150	1.48	1206	1.61	1263	1.74	1321	1.87
2400	842	0.69	903	0.90	961	1.08	1018	1.24	1073	1.39	1128	1.52	1183	1.65	1239	1.78	1296	1.91	1355	2.04
2600	879	0.87	939	1.08	998	1.26	1054	1.42	1110	1.57	1165	1.71	1220	1.84	1275	1.96	1332	2.09	1391	2.22
2800	918	1.08	979	1.28	1037	1.46	1093	1.63	1149	1.77	1204	1.91	1259	2.04	1315	2.16	1371	2.29	-	-
3000	960	1.30	1020	1.50	1079	1.68	1135	1.85	1191	1.99	1246	2.13	1301	2.26	-	-	-	-	-	-
3200	1004	1.54	1065	1.74	1123	1.92	1179	2.09	1235	2.23	-	-	-	-	-	-	-	-	-	-
3400	1050	1.79	1111	2.00	1169	2.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
															2 HP & Field Supplied Drive					

1. Blower performance includes 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP090 (7.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive						Standard 1.5 HP & Drive								Hi Static 3 HP & Drive					
2000	779	0.37	840	0.58	898	0.76	955	0.92	1010	1.07	1065	1.21	1120	1.34	1176	1.46	1233	1.59	1292	1.72
2200	809	0.52	870	0.73	928	0.91	985	1.07	1040	1.22	1095	1.36	1150	1.48	1206	1.61	1263	1.74	1321	1.87
2400	842	0.69	903	0.90	961	1.08	1018	1.24	1073	1.39	1128	1.52	1183	1.65	1239	1.78	1296	1.91	1355	2.04
2600	879	0.87	939	1.08	998	1.26	1054	1.42	1110	1.57	1165	1.71	1220	1.84	1275	1.96	1332	2.09	1391	2.22
2800	918	1.08	979	1.28	1037	1.46	1093	1.63	1149	1.77	1204	1.91	1259	2.04	1315	2.16	1371	2.29	1430	2.43
3000	960	1.30	1020	1.50	1079	1.68	1135	1.85	1191	1.99	1246	2.13	1301	2.26	1356	2.39	1413	2.51	1472	2.65
3200	1004	1.54	1065	1.74	1123	1.92	1179	2.09	1235	2.23	1290	2.37	1345	2.50	1400	2.62	1457	2.75	1516	2.89
3400	1050	1.79	1111	2.00	1169	2.18	1226	2.34	1281	2.49	1336	2.63	1391	2.75	1447	2.88	1504	3.01	1562	3.14
3600	1099	2.07	1159	2.27	1218	2.45	1274	2.62	1330	2.76	1385	2.90	1440	3.03	1495	3.15	1552	3.28	1611	3.42
3800	1149	2.36	1209	2.56	1268	2.74	1324	2.91	1380	3.05	1435	3.19	1490	3.32	1545	3.44	-	-	-	-
															3 HP & Field Supplied Drive					

1. Blower performance includes 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP102 (8.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive						Standard 2 HP & Drive								Hi Static 3 HP & Drive					
2200	632	0.23	684	0.44	734	0.65	783	0.84	830	1.03	876	1.21	921	1.39	966	1.56	1009	1.74	1051	1.91
2400	639	0.32	691	0.53	741	0.74	790	0.93	837	1.12	883	1.30	928	1.48	972	1.65	1015	1.83	1058	2.00
2600	646	0.41	698	0.62	748	0.82	797	1.02	844	1.21	890	1.39	936	1.57	980	1.74	1023	1.92	1065	2.09
2800	654	0.50	706	0.71	756	0.92	805	1.11	852	1.30	898	1.48	943	1.66	987	1.83	1031	2.01	1073	2.18
3000	663	0.60	714	0.81	765	1.02	813	1.21	861	1.40	907	1.58	952	1.76	996	1.93	1039	2.11	1082	2.28
3200	673	0.71	724	0.93	774	1.13	823	1.32	871	1.51	917	1.69	962	1.87	1006	2.05	1049	2.22	1091	2.39
3400	684	0.84	735	1.05	785	1.25	834	1.45	882	1.63	928	1.82	973	2.00	1017	2.17	1060	2.34	1102	2.52
3600	696	0.98	747	1.19	798	1.39	846	1.59	894	1.78	940	1.96	985	2.14	1029	2.31	1072	2.48	1115	2.66
3800	709	1.14	761	1.35	811	1.55	860	1.75	907	1.93	953	2.12	999	2.29	1043	2.47	1086	2.64	1128	2.81
4000	724	1.31	776	1.52	826	1.72	874	1.92	922	2.11	968	2.29	1013	2.47	1057	2.64	1100	2.82	1143	2.99
4200	740	1.50	792	1.71	842	1.92	890	2.11	938	2.30	984	2.48	1029	2.66	1073	2.83	1116	3.01	1159	3.18
																	3 HP & Field Supplied Drive			

1. Blower performance includes 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP120 (10 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive						Standard 2 HP & Drive										Hi Static 3 HP & Drive			
2600	646	0.41	698	0.62	748	0.82	797	1.02	844	1.21	890	1.39	936	1.57	980	1.74	1023	1.92	1065	2.09
2800	654	0.50	706	0.71	756	0.92	805	1.11	852	1.30	898	1.48	943	1.66	987	1.83	1031	2.01	1073	2.18
3000	663	0.60	714	0.81	765	1.02	813	1.21	861	1.40	907	1.58	952	1.76	996	1.93	1039	2.11	1082	2.28
3200	673	0.71	724	0.93	774	1.13	823	1.32	871	1.51	917	1.69	962	1.87	1006	2.05	1049	2.22	1091	2.39
3400	684	0.84	735	1.05	785	1.25	834	1.45	882	1.63	928	1.82	973	2.00	1017	2.17	1060	2.34	1102	2.52
3600	696	0.98	747	1.19	798	1.39	846	1.59	894	1.78	940	1.96	985	2.14	1029	2.31	1072	2.48	1115	2.66
3800	709	1.14	761	1.35	811	1.55	860	1.75	907	1.93	953	2.12	999	2.29	1043	2.47	1086	2.64	1128	2.81
4000	724	1.31	776	1.52	826	1.72	874	1.92	922	2.11	968	2.29	1013	2.47	1057	2.64	1100	2.82	1143	2.99
4200	740	1.50	792	1.71	842	1.92	890	2.11	938	2.30	984	2.48	1029	2.66	1073	2.83	1116	3.01	1159	3.18
4400	757	1.71	809	1.92	859	2.13	908	2.32	955	2.51	1001	2.69	1046	2.87	1091	3.04	1134	3.22	1176	3.39
4600	776	1.94	827	2.15	877	2.35	926	2.55	974	2.74	1020	2.92	1065	3.10	1109	3.27	1152	3.45	-	-
4800	795	2.19	847	2.40	897	2.60	946	2.79	993	2.98	1040	3.16	1085	3.34	-	-	-	-	-	-
5000	816	2.45	868	2.66	918	2.86	967	3.06	1014	3.25	1061	3.43	-	-	-	-	-	-	-	-
																	3 HP & Field Supplied Drive			

1. Blower performance includes 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP150 (12.5 Ton) Side Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP & Field Supplied Drive										Standard 3 HP & Drive									
3200	673	0.71	724	0.93	774	1.13	823	1.32	871	1.51	917	1.69	962	1.87	1006	2.05	1049	2.22	1091	2.39
3400	684	0.84	735	1.05	785	1.25	834	1.45	882	1.63	928	1.82	973	2.00	1017	2.17	1060	2.34	1102	2.52
3600	696	0.98	747	1.19	798	1.39	846	1.59	894	1.78	940	1.96	985	2.14	1029	2.31	1072	2.48	1115	2.66
3800	709	1.14	761	1.35	811	1.55	860	1.75	907	1.93	953	2.12	999	2.29	1043	2.47	1086	2.64	1128	2.81
4000	724	1.31	776	1.52	826	1.72	874	1.92	922	2.11	968	2.29	1013	2.47	1057	2.64	1100	2.82	1143	2.99
4200	740	1.50	792	1.71	842	1.92	890	2.11	938	2.30	984	2.48	1029	2.66	1073	2.83	1116	3.01	1159	3.18
4400	757	1.71	809	1.92	859	2.13	908	2.32	955	2.51	1001	2.69	1046	2.87	1091	3.04	1134	3.22	1176	3.39
4600	776	1.94	827	2.15	877	2.35	926	2.55	974	2.74	1020	2.92	1065	3.10	1109	3.27	1152	3.45	1194	3.62
4800	795	2.19	847	2.40	897	2.60	946	2.79	993	2.98	1040	3.16	1085	3.34	1129	3.52	1172	3.69	1214	3.86
5000	816	2.45	868	2.66	918	2.86	967	3.06	1014	3.25	1061	3.43	1106	3.61	1150	3.78	1193	3.95	1235	4.13
5200	839	2.73	890	2.94	940	3.14	989	3.34	1037	3.53	1083	3.71	1128	3.89	1172	4.06	1215	4.23	1257	4.41
5400	862	3.03	914	3.24	964	3.44	1012	3.64	1060	3.82	1106	4.01	1151	4.18	1195	4.36	1238	4.53	1281	4.70
5600	886	3.34	938	3.55	988	3.76	1037	3.95	1084	4.14	1131	4.32	1176	4.50	1220	4.67	1263	4.85	1305	5.02
5800	912	3.67	964	3.89	1014	4.09	1063	4.28	1110	4.47	1156	4.65	1201	4.83	1246	5.01	1289	5.18	1331	5.35
6000	939	4.02	990	4.23	1041	4.44	1089	4.63	1137	4.82	1183	5.00	1228	5.18	1272	5.35	1315	5.53	1358	5.70
6200	967	4.39	1018	4.60	1068	4.80	1117	4.99	1165	5.18	1211	5.36	1256	5.54	1300	5.72	-	-	-	-
	Hi Static 5 HP & Drive														5 HP & Field Supplied Drive					

1. Blower performance includes 2" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP078-150 Bottom Duct Application

XP078 (6.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive				Standard 1.5 HP & Drive						Hi Static 2 HP & Drive									
1800	775	0.32	849	0.54	923	0.72	997	0.89	1071	1.05	1147	1.20	1224	1.35	1303	1.51	1385	1.68	1469	1.88
2000	805	0.46	879	0.68	953	0.86	1027	1.03	1101	1.19	1177	1.34	1254	1.49	1333	1.65	1414	1.82	1499	2.02
2200	842	0.62	916	0.84	990	1.02	1064	1.19	1138	1.35	1214	1.50	1291	1.65	1370	1.81	1451	1.98	1536	2.18
2400	885	0.81	959	1.02	1033	1.21	1107	1.38	1181	1.53	1257	1.68	1334	1.83	1413	1.99	1495	2.17	-	-
2600	933	1.01	1007	1.23	1081	1.41	1155	1.58	1229	1.74	1305	1.89	1382	2.04	1461	2.20	-	-	-	-
2800	985	1.24	1059	1.46	1132	1.64	1206	1.81	1281	1.97	1356	2.12	1433	2.27	-	-	-	-	-	-
3000	1040	1.49	1114	1.71	1187	1.90	1261	2.06	1336	2.22	-	-	-	-	-	-	-	-	-	-
3200	1097	1.77	1171	1.98	1245	2.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3400	1157	2.06	1231	2.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
									2 HP & Field Supplied Drive											

1. Blower performance includes 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP090 (7.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive				Standard 1.5 HP & Drive						Hi Static 3 HP & Drive									
2000	805	0.46	879	0.68	953	0.86	1027	1.03	1101	1.19	1177	1.34	1254	1.49	1333	1.65	1414	1.82	1499	2.02
2200	842	0.62	916	0.84	990	1.02	1064	1.19	1138	1.35	1214	1.50	1291	1.65	1370	1.81	1451	1.98	1536	2.18
2400	885	0.81	959	1.02	1033	1.21	1107	1.38	1181	1.53	1257	1.68	1334	1.83	1413	1.99	1495	2.17	1579	2.36
2600	933	1.01	1007	1.23	1081	1.41	1155	1.58	1229	1.74	1305	1.89	1382	2.04	1461	2.20	1542	2.37	1627	2.57
2800	985	1.24	1059	1.46	1132	1.64	1206	1.81	1281	1.97	1356	2.12	1433	2.27	1512	2.43	1594	2.60	1679	2.80
3000	1040	1.49	1114	1.71	1187	1.90	1261	2.06	1336	2.22	1411	2.37	1488	2.52	1567	2.68	1649	2.85	1734	3.05
3200	1097	1.77	1171	1.98	1245	2.17	1319	2.34	1393	2.49	1469	2.64	1546	2.80	1625	2.96	1706	3.13	1791	3.33
3400	1157	2.06	1231	2.28	1305	2.47	1379	2.63	1453	2.79	1529	2.94	1606	3.09	1685	3.25	1766	3.43	-	-
3600	1219	2.38	1293	2.60	1367	2.78	1440	2.95	1515	3.11	1590	3.26	1667	3.41	-	-	-	-	-	-
3800	1282	2.72	1356	2.93	1430	3.12	1504	3.29	1578	3.45	-	-	-	-	-	-	-	-	-	-
											3 HP & Field Supplied Drive									

1. Blower performance includes 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP102 (8.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive				Standard 2 HP & Drive										Hi Static 3 HP & Drive					
2200	662	0.53	717	0.68	770	0.83	821	0.96	870	1.09	918	1.22	965	1.35	1010	1.47	1055	1.59	1098	1.71
2400	677	0.63	732	0.78	784	0.93	835	1.06	885	1.19	933	1.32	979	1.44	1025	1.57	1069	1.69	1112	1.81
2600	693	0.75	748	0.90	801	1.04	852	1.18	901	1.31	949	1.44	996	1.56	1041	1.68	1085	1.80	1129	1.92
2800	712	0.88	767	1.03	819	1.17	871	1.31	920	1.44	968	1.57	1014	1.69	1060	1.81	1104	1.94	1148	2.06
3000	733	1.03	788	1.18	841	1.33	892	1.46	941	1.59	989	1.72	1036	1.84	1081	1.97	1125	2.09	1169	2.21
3200	757	1.20	811	1.36	864	1.50	915	1.64	964	1.77	1012	1.89	1059	2.02	1104	2.14	1149	2.26	1192	2.38
3400	782	1.40	837	1.55	890	1.69	941	1.83	990	1.96	1038	2.09	1085	2.21	1130	2.33	1174	2.45	1218	2.58
3600	810	1.61	865	1.76	918	1.91	969	2.04	1018	2.18	1066	2.30	1113	2.43	1158	2.55	1203	2.67	1246	2.79
3800	841	1.85	896	2.00	948	2.14	999	2.28	1049	2.41	1097	2.54	1143	2.66	1189	2.78	1233	2.91	1276	3.03
4000	874	2.11	928	2.26	981	2.40	1032	2.54	1082	2.67	1130	2.80	1176	2.92	1222	3.04	1266	3.16	1309	3.28
4200	909	2.38	963	2.53	1016	2.68	1067	2.81	1117	2.95	1164	3.07	1211	3.20	1256	3.32	1301	3.44	-	-
													3 HP & Field Supplied Drive							

1. Blower performance includes 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP120 (10 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP & Field Supplied Drive				Standard 2 HP & Drive								Hi Static 3 HP & Drive							
2600	693	0.75	748	0.90	801	1.04	852	1.18	901	1.31	949	1.44	996	1.56	1041	1.68	1085	1.80	1129	1.92
2800	712	0.88	767	1.03	819	1.17	871	1.31	920	1.44	968	1.57	1014	1.69	1060	1.81	1104	1.94	1148	2.06
3000	733	1.03	788	1.18	841	1.33	892	1.46	941	1.59	989	1.72	1036	1.84	1081	1.97	1125	2.09	1169	2.21
3200	757	1.20	811	1.36	864	1.50	915	1.64	964	1.77	1012	1.89	1059	2.02	1104	2.14	1149	2.26	1192	2.38
3400	782	1.40	837	1.55	890	1.69	941	1.83	990	1.96	1038	2.09	1085	2.21	1130	2.33	1174	2.45	1218	2.58
3600	810	1.61	865	1.76	918	1.91	969	2.04	1018	2.18	1066	2.30	1113	2.43	1158	2.55	1203	2.67	1246	2.79
3800	841	1.85	896	2.00	948	2.14	999	2.28	1049	2.41	1097	2.54	1143	2.66	1189	2.78	1233	2.91	1276	3.03
4000	874	2.11	928	2.26	981	2.40	1032	2.54	1082	2.67	1130	2.80	1176	2.92	1222	3.04	1266	3.16	1309	3.28
4200	909	2.38	963	2.53	1016	2.68	1067	2.81	1117	2.95	1164	3.07	1211	3.20	1256	3.32	1301	3.44	-	-
4400	946	2.68	1000	2.83	1053	2.98	1104	3.11	1154	3.24	1202	3.37	-	-	-	-	-	-	-	-
4600	985	3.00	1040	3.15	1092	3.29	1143	3.43	-	-	-	-	-	-	-	-	-	-	-	-
4800	1026	3.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3 HP & Field Supplied Drive																	

1. Blower performance includes 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

XP150 (12.5 Ton) Bottom Duct

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP & Field Supplied Drive						Standard 3 HP & Drive										Hi Static 5 HP & Drive			
3200	757	1.20	811	1.36	864	1.50	915	1.64	964	1.77	1012	1.89	1059	2.02	1104	2.14	1149	2.26	1192	2.38
3400	782	1.40	837	1.55	890	1.69	941	1.83	990	1.96	1038	2.09	1085	2.21	1130	2.33	1174	2.45	1218	2.58
3600	810	1.61	865	1.76	918	1.91	969	2.04	1018	2.18	1066	2.30	1113	2.43	1158	2.55	1203	2.67	1246	2.79
3800	841	1.85	896	2.00	948	2.14	999	2.28	1049	2.41	1097	2.54	1143	2.66	1189	2.78	1233	2.91	1276	3.03
4000	874	2.11	928	2.26	981	2.40	1032	2.54	1082	2.67	1130	2.80	1176	2.92	1222	3.04	1266	3.16	1309	3.28
4200	909	2.38	963	2.53	1016	2.68	1067	2.81	1117	2.95	1164	3.07	1211	3.20	1256	3.32	1301	3.44	1344	3.56
4400	946	2.68	1000	2.83	1053	2.98	1104	3.11	1154	3.24	1202	3.37	1248	3.49	1294	3.62	1338	3.74	1381	3.86
4600	985	3.00	1040	3.15	1092	3.29	1143	3.43	1193	3.56	1241	3.69	1287	3.81	1333	3.93	1377	4.05	1420	4.18
4800	1026	3.33	1081	3.48	1133	3.63	1184	3.76	1234	3.90	1282	4.02	1328	4.15	1374	4.27	1418	4.39	1461	4.51
5000	1069	3.69	1124	3.84	1177	3.98	1228	4.12	1277	4.25	1325	4.38	1372	4.50	1417	4.62	1461	4.74	1505	4.87
5200	1114	4.06	1169	4.21	1222	4.35	1273	4.49	1322	4.62	1370	4.75	1417	4.87	1462	5.00	1506	5.12	1550	5.24
5400	1161	4.45	1216	4.60	1268	4.74	1319	4.88	1369	5.01	1417	5.14	1463	5.26	1509	5.38	1553	5.51	1596	5.63
5600	1210	4.86	1264	5.01	1317	5.15	1368	5.29	1418	5.42	1465	5.55	1512	5.67	-	-	-	-	-	-
5800	1260	5.28	1315	5.43	1367	5.57	1418	5.71	-	-	-	-	-	-	-	-	-	-	-	-
									5 HP & Field Supplied Drive											

1. Blower performance includes 2” filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

RPM Selection

Size (Tons)	Model	HP	Max BHP	Motor Sheave	Blower Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Fully Closed
078 (6.5)	ZH	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		2	2.30	1VM50	AK64	N/A	1039	1094	1150	1207	1256	1308
090 (7.5)	ZH	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		3	3.45	1VM50	AK61	N/A	1088	1147	1205	1265	1312	1365
102 (8.5)	ZH	2	2.30	1VM50	AK89	N/A	735	775	815	851	889	930
		3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
120 (10)	ZH	2	2.30	1VM50	AK84	N/A	785	821	858	901	940	980
		3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
150 (12.5)	ZH	3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
		5	5.75	1VP56	BK77	1052	1095	1136	1175	1216	1272	N/A
078 (6.5)	ZR	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		2	2.30	1VM50	AK64	N/A	1039	1094	1150	1207	1256	1308
090 (7.5)	ZR	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		3	3.45	1VM50	AK61	N/A	1088	1147	1205	1265	1312	1365
102 (8.5)	ZR	2	2.30	1VM50	AK89	N/A	735	775	815	851	889	930
		3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
120 (10)	ZR	2	2.30	1VM50	AK84	N/A	785	821	858	901	940	980
		3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
150 (12.5)	ZR	3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
		5	5.75	1VP56	BK77	1052	1095	1136	1175	1216	1272	N/A
078 (6.5)	XP	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		2	2.30	1VM50	AK64	N/A	1039	1094	1150	1207	1256	1308
090 (7.5)	XP	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		3	3.45	1VM50	AK61	N/A	1088	1147	1205	1265	1312	1365
102 (8.5)	XP	2	2.30	1VM50	AK89	N/A	735	775	815	851	889	930
		3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
120 (10)	XP	2	2.30	1VM50	AK84	N/A	785	821	858	901	940	980
		3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
150 (12.5)	XP	3	3.45	1VM50	AK74	N/A	880	928	972	1016	1067	1110
		5	5.75	1VP56	BK77	1052	1095	1136	1175	1216	1272	N/A

Additional Static Resistance

Size (Tons)	Model	CFM	Cooling Only[1]	Economizer[2 3]	Electric Heat kW[2]				
					95	18	24	36	54
078 (6.5) 090 (7.5)	ZH/ZR/XP	1900	0.00	0.07	0.05	0.06	0.07	0.08	0.10
		2100	-0.01	0.09	0.06	0.07	0.08	0.09	0.11
		2300	-0.01	0.11	0.07	0.08	0.09	0.10	0.13
		2500	-0.02	0.13	0.08	0.09	0.10	0.11	0.14
		2700	-0.03	0.16	0.09	0.10	0.12	0.13	0.16
		2900	-0.04	0.18	0.10	0.11	0.13	0.14	0.18
		3100	-0.05	0.20	0.12	0.13	0.15	0.16	0.20
		3300	-0.06	0.22	0.13	0.14	0.17	0.18	0.22
		3500	-0.07	0.24	0.15	0.16	0.19	0.20	0.24
		3700	-0.08	0.27	0.17	0.18	0.21	0.22	0.26
		3900	-0.09	0.29	0.19	0.20	0.23	0.24	0.28
		4100	-0.09	0.31	0.21	0.22	0.25	0.26	0.31
		4300	-0.10	0.30	0.23	0.24	0.28	0.29	0.34
		4500	-0.11	0.35	0.25	0.26	0.30	0.31	0.37
102 (8.5) 120 (10) 150 (12.5)	ZH/ZR/XP	1900	0.06	0.02	0.05	0.06	0.07	0.08	0.10
		2100	0.07	0.02	0.06	0.07	0.08	0.09	0.11
		2300	0.08	0.02	0.07	0.08	0.09	0.10	0.13
		2500	0.09	0.02	0.08	0.09	0.10	0.11	0.14
		2700	0.11	0.03	0.09	0.10	0.12	0.13	0.16
		2900	0.12	0.03	0.10	0.11	0.13	0.14	0.18
		3100	0.14	0.03	0.12	0.13	0.15	0.16	0.20
		3300	0.16	0.03	0.13	0.14	0.17	0.18	0.22
		3500	0.18	0.04	0.15	0.16	0.19	0.20	0.24
		3700	0.20	0.04	0.17	0.18	0.21	0.22	0.26
		3900	0.23	0.04	0.19	0.20	0.23	0.24	0.28
		4100	0.25	0.04	0.21	0.22	0.25	0.26	0.31
		4300	0.28	0.05	0.23	0.24	0.28	0.29	0.34
		4500	0.30	0.05	0.25	0.26	0.30	0.31	0.37
		4700	0.33	0.05	0.28	0.29	0.33	0.34	0.40
		4900	0.36	0.05	0.30	0.31	0.35	0.37	0.43
		5100	0.39	0.06	0.33	0.34	0.38	0.40	0.46
		5300	0.42	0.06	0.35	0.37	0.41	0.43	0.49
		5500	0.45	0.06	0.38	0.40	0.44	0.46	0.53
		5700	0.48	0.06	0.41	0.43	0.47	0.49	0.56
		5900	0.52	0.07	0.44	0.46	0.50	0.53	0.59
		6100	0.56	0.07	0.47	0.49	0.53	0.56	0.62
		6300	0.60	0.07	0.50	0.53	0.56	0.59	0.65

1. Add these values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these values from the available external static pressure shown in the respective Blower Performance Tables.
3. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation.

Drive Selection

1. Determine side or bottom supply duct Application.
2. Determine desired airflow.
3. Calculate or measure the amount of external static pressure.
4. Using the operating point determined from steps 1, 2 & 3, locate this point on the appropriate supply air blower performance table. (Linear interpolation may be necessary.)
5. Noting the RPM and BHP from step 4, locate the appropriate motor and, or drive on the RPM selection table.
6. Review the BHP compared to the motor options available. Select the appropriate motor and, or drive.
7. Review the RPM range for the motor options available. Select the appropriate drive if multiple drives are available for the chosen motor.
8. Determine turns open to obtain the desired operation point.

Example

1. 2600 CFM
2. 1.6 iwg
3. Using the supply air blower performance table below, the following data point was located: 1268 RPM & 1.95 BHP.
4. Using the RPM selection table below, Size X and Model Y is found.
5. 1.95 BHP exceeds the maximum continuous BHP rating of the 1.5 HP motor. The 2 HP motor is required.
6. 1268 RPM is within the range of the 2 HP drives.
7. Using the 2 HP motor and drive, .5 turns open will achieve 1268 RPM.

Airflow Performance

Example Supply Air Blower Performance

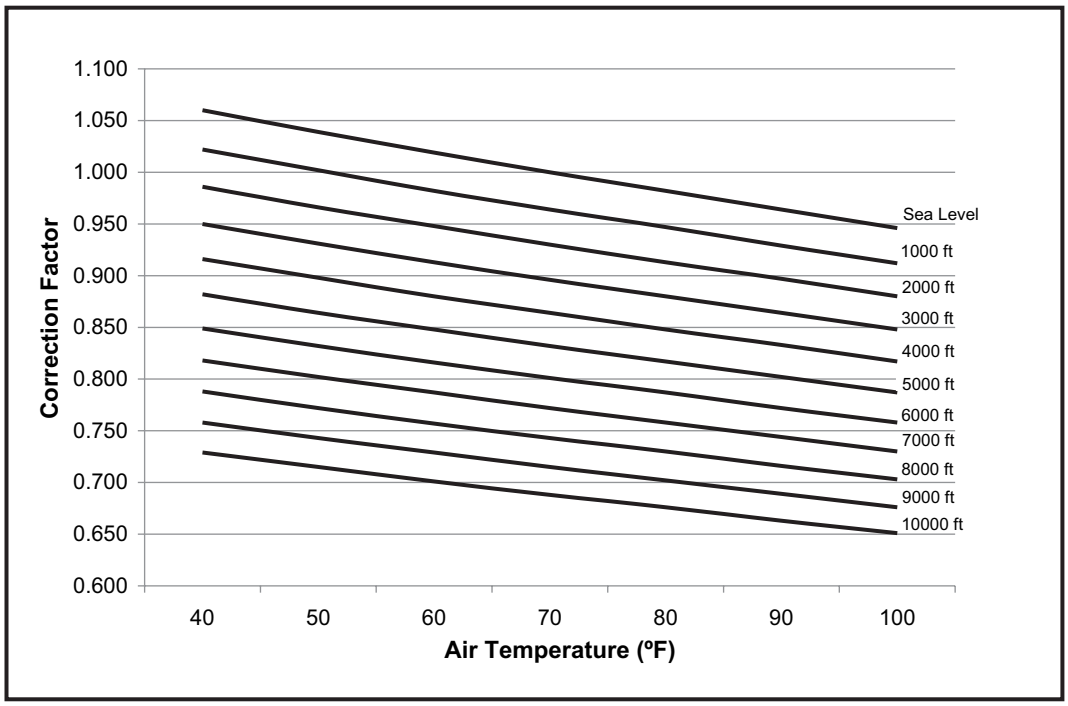
Air Flow (CFM)	Available External Static Pressure - IWG																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1.5 HP & Field Supplied Drive								Standard 1.5 HP & Drive						Alternate 2 HP & Drive					
2200	804	0.50	866	0.71	925	0.90	982	1.06	1038	1.21	1092	1.35	1147	1.48	1203	1.61	1259	1.73	1317	1.87
2400	835	0.66	897	0.87	956	1.06	1013	1.22	1069	1.37	1124	1.51	1178	1.64	1234	1.77	1290	1.90	1348	2.03
2600	869	0.84	931	1.05	990	1.24	1047	1.40	1103	1.55	1158	1.69	1212	1.82	1268	1.95	1324	2.07	1382	2.21
2800	906	1.03	968	1.25	1027	1.43	1084	1.60	1139	1.75	1194	1.89	1249	2.02	1304	2.14	1361	2.27	-	-

Table X: RPM Selection

Size (Tons)	Model	HP	Max BHP	Motor Sheave	Blower Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Fully Closed
X	Y	1.5	1.73	1VM50	AK74	N/A	897	945	991	1035	1079	1126
		2	2.30	1VM50	AK64	N/A	1039	1094	1150	1207	1256	1308

Altitude/Temperature Correction Factors

Air Temp.	Altitude (Ft.)										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
40	1.060	1.022	0.986	0.950	0.916	0.882	0.849	0.818	0.788	0.758	0.729
50	1.039	1.002	0.966	0.931	0.898	0.864	0.832	0.802	0.772	0.743	0.715
60	1.019	0.982	0.948	0.913	0.880	0.848	0.816	0.787	0.757	0.729	0.701
70	1.000	0.964	0.930	0.896	0.864	0.832	0.801	0.772	0.743	0.715	0.688
80	0.982	0.947	0.913	0.880	0.848	0.817	0.787	0.758	0.730	0.702	0.676
90	0.964	0.929	0.897	0.864	0.833	0.802	0.772	0.744	0.716	0.689	0.663
100	0.946	0.912	0.880	0.848	0.817	0.787	0.758	0.730	0.703	0.676	0.651



Gas Heat Minimum Supply Air

Size (Tons)	Model	Heat Size	Supply Air (CFM)			
			Cooling		Heating	
			Min	Max	Min	Max
078 (6.5)	ZH/ZR	10	1950	3250	1950	3250
		15	1950	3250	1950	3250
090 (7.5)	ZH/ZR	10	2250	3750	2250	3750
		15	2250	3750	2250	3750
102 (8.5)	ZH/ZR	10	2550	4250	2550	4250
		15	2550	4250	2550	4250
120 (10)	ZH/ZR	15	3000	5000	3000	5000
		20	3000	5000	3000	5000
150 (12.5)	ZH/ZR	15	3750	6250	3750	6250
		20	3750	6250	3750	6250

Electric Heat Minimum Supply Air

Size (Tons)	Model	Voltage	Minimum Supply Air (CFM)				
			Heater kW				
			9	18	24	36	54
078 (6.5)	ZH/ZR/XP	208/230-3-60	1950	1950	1950	1950	-
		460-3-60	1950	1950	1950	1950	-
		600-3-60	1950	1950	1950	1950	-
090 (7.5)	ZH/ZR/XP	208/230-3-60	2250	2250	2250	2250	-
		460-3-60	2250	2250	2250	2250	-
		600-3-60	2250	2250	2250	2250	-
102 (8.5)	ZH/ZR/XP	208/230-3-60	2550	2550	2550	2550	-
		460-3-60	2550	2550	2550	2550	-
		600-3-60	2550	2550	2550	2550	-
120 (10)	ZH/ZR/XP	208/230-3-60	-	3000	3000	3000	3500
		460-3-60	-	3000	3000	3000	3000
		600-3-60	-	3000	3000	3000	3500
150 (12.5)	ZH/ZR/XP	208/230-3-60	-	3750	3750	3750	4000
		460-3-60	-	3750	3750	3750	3750
		600-3-60	-	3750	3750	3750	3750

Indoor Blower Specifications

Size (Tons)	Model	Motor					Motor Sheave			Blower Sheave			Belt
		HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Model	
078 (6.5)	ZH/ZR/XP	1-1/2	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A49
		2	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	6.0	1	AK64	A49
090 (7.5)	ZH/ZR/XP	1-1/2	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A49
		3	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	5.7	1	AK61	A49
102 (8.5)	ZH/ZR/XP	2	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	8.5	1	AK89	A56
		3	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A54
120 (10)	ZH/ZR/XP	2	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	8.0	1	AK84	A56
		3	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A54
150 (12.5)	ZH/ZR/XP	3	1725	0.8	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A54
		5	1725	0.87	1.15	184T	4.3 - 5.3	1-1/8	1VP56	6.7	1	BK77	BX55

Power Exhaust Specifications

Model	Voltage	Motor			Motor			Fuse Size	CFM @ 0.1 ESP
		HP	RPM[1]	QTY	LRA	FLA	MCA		
2PE04703225	208/230-1-60	3/4	1075	1	7.8	5	6.3	10	3800
2PE04703246	460-1-60	3/4	1075	1	3.4	2.2	2.8	5	3800
2PE04703258	575-1-60	3/4	1050	1	2.9	1.5	1.9	4	3800

1. Motors are multi-tapped and factory wired for high speed.

Electric Heat Multipliers

Voltage		kW Capacity Multipliers[1]
Nominal	Applied	
240	208	0.75
	230	0.92
480	460	0.92
600	575	0.92

1. Electric heaters are rated at nominal voltage. Use this table to determine the electric heat capacity for heaters applied at lower voltages.

Sound Performance

Indoor Sound Power Levels

Size (Tons)	Model	CFM	ESP (IWG)	Blower		Sound Power, dB (10^{-12}) Watts								
						Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
				RPM	BHP		63	125	250	500	1000	2000	4000	8000
078 (6.5)	ZH/ZR/XP	2600	0.6	812	1.14	74	71	73	73	71	69	65	65	60
090 (7.5)	ZH/ZR/XP	3000	0.6	854	1.47	77	74	76	76	74	72	68	68	63
102 (8.5)	ZH/ZR/XP	3400	0.6	872	1.65	80	77	79	79	77	75	71	71	66
120 (10)	ZH/ZR/XP	4000	0.6	959	2.29	83	80	82	82	80	78	74	74	69
150 (12.5)	ZH/ZR/XP	5000	0.6	1132	3.74	87	84	86	86	84	82	78	78	73

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric/free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value of sound data in any other form than sound power level ratings.

Outdoor Sound Power Levels
ZH/ZR/XP078-150

Size (Tons)	Model	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)						
			125	250	500	1000	2000	4000	8000
078 (6.5)	ZH	83	88.0	82.5	81.5	78.0	73.0	69.0	62.0
090 (7.5)	ZH	83	89.5	83.5	82.0	78.0	72.5	68.0	60.5
102 (8.5)	ZH	90	93.5	92.5	88.0	84.5	79.0	74.5	68.0
120 (10)	ZH	90	94.0	92.0	88.5	84.5	80.0	75.5	68.5
150 (12.5)	ZH	84	90.0	84.5	81.5	77.5	72.0	68.5	61.5
078 (6.5)	ZR/XP	83	88.0	82.5	81.5	78.0	73.0	69.0	62.0
090 (7.5)	ZR/XP	83	89.5	83.5	82.0	78.0	72.5	68.0	60.5
102 (8.5)	ZR/XP	83	89.0	84.5	81.5	78.0	72.5	68.5	70.5
120 (10)	ZR/XP	83	89.5	83.5	81.0	78.0	72.0	68.5	70.5
150 (12.5)	ZR/XP	84	90.0	84.5	81.5	77.5	72.0	68.5	61.5

1. Rated in accordance with ARI 270 standard.

Electrical Data

ZH078-150 Standard Motor - Without Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	12.8	95.0	20.0	1.5	6.2	5.5	0.0	None	-	-	-	38.0	43.5	50	50
									E09	6.8	1	18.9	38.0	43.5	50	50
									E18	13.5	2	37.5	54.6	61.5	60	70
									E24	18.0	2	50.0	70.2	77.1	80	80
									E36	25.5	2	70.8	96.2	103.1	100	110
	230	12.8	95.0	20.0	1.5	6.2	5.5	0.0	None	-	-	-	38.0	43.5	50	50
									E09	9.0	1	22.6	38.0	43.5	50	50
									E18	18.0	2	45.2	61.9	68.8	70	70
									E24	24.0	2	60.2	79.9	86.8	80	90
									E36	34.0	2	85.3	110.0	116.9	110	125
	460	6.4	45.0	10.0	0.8	3.1	2.2	0.0	None	-	-	-	19.1	21.3	25	25
									E09	9.0	1	11.3	19.1	21.3	25	25
									E18	18.0	2	22.6	30.9	33.7	35	35
									E24	24.0	2	30.1	40.0	42.7	40	45
									E36	34.0	2	42.7	55.0	57.7	60	60
	575	5.4	38.0	8.5	0.6	2.4	1.8	0.0	None	-	-	-	15.8	17.6	20	20
									E09	9.0	1	9.0	15.8	17.6	20	20
									E18	18.0	2	18.1	24.7	26.9	25	30
									E24	24.0	2	24.1	31.9	34.1	35	35
									E36	34.0	2	34.1	43.9	46.1	45	50
090 (7.5)	208	14.7	115.0	23.0	1.5	6.2	5.5	0.0	None	-	-	-	42.3	47.8	50	60
									E09	6.8	1	18.9	42.3	47.8	50	60
									E18	13.5	1	37.5	54.6	61.5	60	70
									E24	18.0	1	50.0	70.2	77.1	80	80
									E36	25.5	1	70.8	96.2	103.1	100	110
	230	14.7	115.0	23.0	1.5	6.2	5.5	0.0	None	-	-	-	42.3	47.8	50	60
									E09	9.0	1	22.6	42.3	47.8	50	60
									E18	18.0	1	45.2	61.9	68.8	70	70
									E24	24.0	1	60.2	79.9	86.8	80	90
									E36	34.0	1	85.3	110.0	116.9	110	125
	460	7.7	50.0	12.0	0.8	3.1	2.2	0.0	None	-	-	-	22.0	24.2	25	30
									E09	9.0	1	11.3	22.0	24.2	25	30
									E18	18.0	1	22.6	30.9	33.7	35	35
									E24	24.0	1	30.1	40.0	42.7	40	45
									E36	34.0	1	42.7	55.0	57.7	60	60
	575	6.4	40.0	10.0	0.6	2.4	1.8	0.0	None	-	-	-	18.0	19.8	20	25
									E09	9.0	1	9.0	18.0	19.8	20	25
									E18	18.0	1	18.1	24.7	26.9	25	30
									E24	24.0	1	24.1	31.9	34.1	35	35
									E36	34.0	1	34.1	43.9	46.1	45	50
102 (8.5)	208	16.0	120.0	25.0	3.5	8.2	5.5	0.0	None	-	-	-	51.2	56.7	60	70
									E09	6.8	1	18.9	51.2	56.7	60	70
									E18	13.5	2	37.5	57.1	64.0	60	70
									E24	18.0	2	50.0	72.7	79.6	80	80
									E36	25.5	2	70.8	98.7	105.6	100	110
	230	16.0	120.0	25.0	3.5	8.2	5.5	0.0	None	-	-	-	51.2	56.7	60	70
									E09	9.0	1	22.6	51.2	56.7	60	70
									E18	18.0	2	45.2	64.4	71.3	70	80
									E24	24.0	2	60.2	82.4	89.3	90	90
									E36	34.0	2	85.3	112.5	119.4	125	125
	460	8.3	60.0	13.0	1.6	4.1	2.2	0.0	None	-	-	-	26.0	28.2	30	35
									E09	9.0	1	11.3	26.0	28.2	30	35
									E18	18.0	2	22.6	32.2	34.9	35	35
									E24	24.0	2	30.1	41.2	44.0	45	45
									E36	34.0	2	42.7	56.2	59.0	60	60
	575	6.7	40.0	10.5	1.3	3.6	1.8	0.0	None	-	-	-	21.3	23.1	25	25
									E09	9.0	1	9.0	21.3	23.1	25	25
									E18	18.0	2	18.1	26.2	28.4	30	30
									E24	24.0	2	24.1	33.4	35.6	35	40
									E36	34.0	2	34.1	45.4	47.6	50	50

ZH078-150 Standard Motor - Without Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	3.5	8.2	5.5	0.0	None	-	-	-	55.5	61.0	70	70
									E18	13.5	2	37.5	57.1	64.0	70	70
									E24	18.0	2	50.0	72.7	79.6	80	80
									E36	25.5	2	70.8	98.7	105.6	100	110
									E54	40.6	2	112.7	151.1	158.0	175	175
	230	17.9	120.0	28.0	3.5	8.2	5.5	0.0	None	-	-	-	55.5	61.0	70	70
									E18	18.0	2	45.2	64.4	71.3	70	80
									E24	24.0	2	60.2	82.4	89.3	90	90
									E36	34.0	2	85.3	112.5	119.4	125	125
									E54	54.0	2	135.6	140.2	147.0	150	175
	460	9.6	70.0	15.0	1.6	4.1	2.2	0.0	None	-	-	-	28.9	31.1	35	40
									E18	18.0	2	22.6	32.2	34.9	35	40
									E24	24.0	2	30.1	41.2	44.0	45	45
									E36	34.0	2	42.7	56.2	59.0	60	60
									E54	54.0	2	67.8	70.1	72.8	80	80
	575	7.4	53.0	11.5	1.3	3.6	1.8	0.0	None	-	-	-	22.9	24.7	30	30
									E18	18.0	2	18.1	26.2	28.4	30	30
									E24	24.0	2	24.1	33.4	35.6	35	40
									E36	34.0	2	34.1	45.4	47.6	50	50
									E54	54.0	2	54.2	56.5	58.7	70	70
150 (12.5)	208	25.0	149.0	35.0	1.5	10.9	5.5	0.0	None	-	-	-	73.2	78.7	90	100
									E18	13.5	2	37.5	73.2	78.7	90	100
									E24	18.0	2	50.0	76.1	83.0	90	100
									E36	25.5	2	70.8	102.1	109.0	110	110
									E54	40.6	2	112.7	154.5	161.4	175	175
	230	25.0	149.0	35.0	1.5	10.9	5.5	0.0	None	-	-	-	73.2	78.7	90	100
									E18	18.0	2	45.2	73.2	78.7	90	100
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
									E54	54.0	2	135.6	143.5	150.4	175	175
	460	11.8	75.0	16.5	0.8	5.3	2.2	0.0	None	-	-	-	35.1	37.3	45	45
									E18	18.0	2	22.6	35.1	37.3	45	45
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
									E54	54.0	2	67.8	71.6	74.3	80	80
	575	8.6	54.0	12.0	0.6	4.1	1.8	0.0	None	-	-	-	25.9	27.7	30	35
									E18	18.0	2	18.1	26.8	29.0	30	35
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50
									E54	54.0	2	54.2	57.1	59.3	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZH078-150 Hi Static Motor - Without Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	12.8	95.0	20.0	1.5	8.2	5.5	0.0	None	-	-	-	40.0	45.5	50	50
									E09	6.8	1	18.9	40.0	45.5	50	50
									E18	13.5	2	37.5	57.1	64.0	60	70
									E24	18.0	2	50.0	72.7	79.6	80	80
									E36	25.5	2	70.8	98.7	105.6	100	110
	230	12.8	95.0	20.0	1.5	8.2	5.5	0.0	None	-	-	-	40.0	45.5	50	50
									E09	9.0	1	22.6	40.0	45.5	50	50
									E18	18.0	2	45.2	64.4	71.3	70	80
									E24	24.0	2	60.2	82.4	89.3	90	90
									E36	34.0	2	85.3	112.5	119.4	125	125
	460	6.4	45.0	10.0	0.8	4.1	2.2	0.0	None	-	-	-	20.1	22.3	25	25
									E09	9.0	1	11.3	20.1	22.3	25	25
									E18	18.0	2	22.6	32.2	34.9	35	35
									E24	24.0	2	30.1	41.2	44.0	45	45
									E36	34.0	2	42.7	56.2	59.0	60	60
	575	5.4	38.0	8.5	0.6	3.6	1.8	0.0	None	-	-	-	17.0	18.8	20	20
									E09	9.0	1	9.0	17.0	18.8	20	20
									E18	18.0	2	18.1	26.2	28.4	30	30
									E24	24.0	2	24.1	33.4	35.6	35	40
									E36	34.0	2	34.1	45.4	47.6	50	50
090 (7.5)	208	14.7	115.0	23.0	1.5	10.9	5.5	0.0	None	-	-	-	47.0	52.5	60	60
									E09	6.8	1	18.9	47.0	52.5	60	60
									E18	13.5	2	37.5	60.5	67.3	70	70
									E24	18.0	2	50.0	76.1	83.0	80	90
									E36	25.5	2	70.8	102.1	109.0	110	110
	230	14.7	115.0	23.0	1.5	10.9	5.5	0.0	None	-	-	-	47.0	52.5	60	60
									E09	9.0	1	22.6	47.0	52.5	60	60
									E18	18.0	2	45.2	67.8	74.6	70	80
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
	460	7.7	50.0	12.0	0.8	5.3	2.2	0.0	None	-	-	-	24.2	26.4	30	30
									E09	9.0	1	11.3	24.2	26.4	30	30
									E18	18.0	2	22.6	33.7	36.4	35	40
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
	575	6.4	40.0	10.0	0.6	4.1	1.8	0.0	None	-	-	-	19.7	21.5	25	25
									E09	9.0	1	9.0	19.7	21.5	25	25
									E18	18.0	2	18.1	26.8	29.0	30	30
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50
102 (8.5)	208	16.0	120.0	25.0	3.5	10.9	5.5	0.0	None	-	-	-	53.9	59.4	60	70
									E09	6.8	1	18.9	53.9	59.4	60	70
									E18	13.5	2	37.5	60.5	67.3	70	70
									E24	18.0	2	50.0	76.1	83.0	80	90
									E36	25.5	2	70.8	102.1	109.0	110	110
	230	16.0	120.0	25.0	3.5	10.9	5.5	0.0	None	-	-	-	53.9	59.4	60	70
									E09	9.0	1	22.6	53.9	59.4	60	70
									E18	18.0	2	45.2	67.8	74.6	70	80
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
	460	8.3	60.0	13.0	1.6	5.3	2.2	0.0	None	-	-	-	27.2	29.4	35	35
									E09	9.0	1	11.3	27.2	29.4	35	35
									E18	18.0	2	22.6	33.7	36.4	35	40
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
	575	6.7	40.0	10.5	1.3	4.1	1.8	0.0	None	-	-	-	21.8	23.6	25	30
									E09	9.0	1	9.0	21.8	23.6	25	30
									E18	18.0	2	18.1	26.8	29.0	30	30
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50

ZH078-150 Hi Static Motor - Without Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	3.5	10.9	5.5	0.0	None	-	-	-	58.2	63.7	70	80
									E18	13.5	2	37.5	60.5	67.3	70	80
									E24	18.0	2	50.0	76.1	83.0	80	90
									E36	25.5	2	70.8	102.1	109.0	110	110
									E54	40.6	2	112.7	154.5	161.4	175	175
	230	17.9	120.0	28.0	3.5	10.9	5.5	0.0	None	-	-	-	58.2	63.7	70	80
									E18	18.0	2	45.2	67.8	74.6	70	80
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
									E54	54.0	2	135.6	143.5	150.4	175	175
	460	9.6	70.0	15.0	1.6	5.3	2.2	0.0	None	-	-	-	30.1	32.3	35	40
									E18	18.0	2	22.6	33.7	36.4	35	40
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
									E54	54.0	2	67.8	71.6	74.3	80	80
	575	7.4	53.0	11.5	1.3	4.1	1.8	0.0	None	-	-	-	23.4	25.2	30	30
									E18	18.0	2	18.1	26.8	29.0	30	30
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50
									E54	54.0	2	54.2	57.1	59.3	70	70
150 (12.5)	208	25.0	149.0	35.0	1.5	16.1	5.5	0.0	None	-	-	-	78.4	83.9	100	100
									E18	13.5	2	37.5	78.4	83.9	100	100
									E24	18.0	2	50.0	82.6	89.5	100	100
									E36	25.5	2	70.8	108.6	115.5	110	125
									E54	40.6	2	112.7	161.0	167.9	175	175
	230	25.0	149.0	35.0	1.5	16.1	5.5	0.0	None	-	-	-	78.4	83.9	100	100
									E18	18.0	2	45.2	78.4	83.9	100	100
									E24	24.0	2	60.2	92.3	99.2	100	100
									E36	34.0	2	85.3	122.4	129.2	125	150
									E54	54.0	2	135.6	150.0	156.9	175	175
	460	11.8	75.0	16.5	0.8	8.1	2.2	0.0	None	-	-	-	37.9	40.1	45	50
									E18	18.0	2	22.6	37.9	40.1	45	50
									E24	24.0	2	30.1	46.2	49.0	50	50
									E36	34.0	2	42.7	61.2	64.0	70	70
									E54	54.0	2	67.8	75.1	77.8	90	90
	575	8.6	54.0	12.0	0.6	6.0	1.8	0.0	None	-	-	-	27.8	29.6	35	35
									E18	18.0	2	18.1	29.2	31.4	35	35
									E24	24.0	2	24.1	36.4	38.6	40	40
									E36	34.0	2	34.1	48.4	50.6	50	60
									E54	54.0	2	54.2	59.5	61.7	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZH078-150 Standard Motor - With Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	12.8	95.0	20.0	1.5	6.2	5.5	10.0	None	–	–	–	48.0	53.5	60	60
									E09	6.8	1	18.9	48.0	53.5	60	60
									E18	13.5	2	37.5	67.1	74.0	70	80
									E24	18.0	2	50.0	82.7	89.6	90	90
									E36	25.5	2	70.8	108.7	115.6	110	125
	230	12.8	95.0	20.0	1.5	6.2	5.5	10.0	None	–	–	–	48.0	53.5	60	60
									E09	9.0	1	22.6	48.0	54.2	60	60
									E18	18.0	2	45.2	74.4	81.3	80	90
									E24	24.0	2	60.2	92.4	99.3	100	100
									E36	34.0	2	85.3	122.5	129.4	125	150
	460	6.4	45.0	10.0	0.8	3.1	2.2	5.0	None	–	–	–	24.1	26.3	30	30
									E09	9.0	1	11.3	24.1	26.4	30	30
									E18	18.0	2	22.6	37.2	39.9	40	40
									E24	24.0	2	30.1	46.2	49.0	50	50
									E36	34.0	2	42.7	61.2	64.0	70	70
	575	5.4	38.0	8.5	0.6	2.4	1.8	4.0	None	–	–	–	19.8	21.6	25	25
									E09	9.0	1	9.0	19.8	21.6	25	25
									E18	18.0	2	18.1	29.7	31.9	30	35
									E24	24.0	2	24.1	36.9	39.1	40	40
									E36	34.0	2	34.1	48.9	51.1	50	60
090 (7.5)	208	14.7	115.0	23.0	1.5	6.2	5.5	10.0	None	–	–	–	52.3	57.8	60	70
									E09	6.8	1	18.9	52.3	57.8	60	70
									E18	13.5	1	37.5	67.1	74.0	70	80
									E24	18.0	1	50.0	82.7	89.6	90	90
									E36	25.5	1	70.8	108.7	115.6	110	125
	230	14.7	115.0	23.0	1.5	6.2	5.5	10.0	None	–	–	–	52.3	57.8	60	70
									E09	9.0	1	22.6	52.3	57.8	60	70
									E18	18.0	1	45.2	74.4	81.3	80	90
									E24	24.0	1	60.2	92.4	99.3	100	100
									E36	34.0	1	85.3	122.5	129.4	125	150
	460	7.7	50.0	12.0	0.8	3.1	2.2	5.0	None	–	–	–	27.0	29.2	30	35
									E09	9.0	1	11.3	27.0	29.2	30	35
									E18	18.0	1	22.6	37.2	39.9	40	40
									E24	24.0	1	30.1	46.2	49.0	50	50
									E36	34.0	1	42.7	61.2	64.0	70	70
	575	6.4	40.0	10.0	0.6	2.4	1.8	4.0	None	–	–	–	22.0	23.8	25	30
									E09	9.0	1	9.0	22.0	23.8	25	30
									E18	18.0	1	18.1	29.7	31.9	30	35
									E24	24.0	1	24.1	36.9	39.1	40	40
									E36	34.0	1	34.1	48.9	51.1	50	60
102 (8.5)	208	16.0	120.0	25.0	3.5	8.2	5.5	10.0	None	–	–	–	61.2	66.7	70	80
									E09	6.8	1	18.9	61.2	66.7	70	80
									E18	13.5	2	37.5	69.6	76.5	70	80
									E24	18.0	2	50.0	85.2	92.1	90	100
									E36	25.5	2	70.8	111.2	118.1	125	125
	230	16.0	120.0	25.0	3.5	8.2	5.5	10.0	None	–	–	–	61.2	66.7	70	80
									E09	9.0	1	22.6	61.2	66.7	70	80
									E18	18.0	2	45.2	76.9	83.8	80	90
									E24	24.0	2	60.2	94.9	101.8	100	110
									E36	34.0	2	85.3	125.0	131.9	125	150
	460	8.3	60.0	13.0	1.6	4.1	2.2	5.0	None	–	–	–	31.0	33.2	35	40
									E09	9.0	1	11.3	31.0	33.2	35	40
									E18	18.0	2	22.6	38.4	41.2	40	45
									E24	24.0	2	30.1	47.5	50.2	50	60
									E36	34.0	2	42.7	62.5	65.2	70	70
	575	6.7	40.0	10.5	1.3	3.6	1.8	4.0	None	–	–	–	25.3	27.1	30	30
									E09	9.0	1	9.0	25.3	27.1	30	30
									E18	18.0	2	18.1	31.2	33.4	35	35
									E24	24.0	2	24.1	38.4	40.6	40	45
									E36	34.0	2	34.1	50.4	52.6	60	60

ZH078-150 Standard Motor - With Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	3.5	8.2	5.5	10.0	None	–	–	–	65.5	71.0	80	80
									E18	13.5	2	37.5	69.6	76.5	80	80
									E24	18.0	2	50.0	85.2	92.1	90	100
									E36	25.5	2	70.8	111.2	118.1	125	125
									E54	40.6	2	112.7	163.6	170.5	175	175
	230	17.9	120.0	28.0	3.5	8.2	5.5	10.0	None	–	–	–	65.5	71.0	80	80
									E18	18.0	2	45.2	76.9	83.8	80	90
									E24	24.0	2	60.2	94.9	101.8	100	110
									E36	34.0	2	85.3	125.0	131.9	125	150
									E54	54.0	2	135.6	152.7	159.5	175	175
	460	9.6	70.0	15.0	1.6	4.1	2.2	5.0	None	–	–	–	33.9	36.1	40	45
									E18	18.0	2	22.6	38.4	41.2	40	45
									E24	24.0	2	30.1	47.5	50.2	50	60
									E36	34.0	2	42.7	62.5	65.2	70	70
									E54	54.0	2	67.8	76.3	79.1	90	90
	575	7.4	53.0	11.5	1.3	3.6	1.8	4.0	None	–	–	–	26.9	28.7	30	35
									E18	18.0	2	18.1	31.2	33.4	35	35
									E24	24.0	2	24.1	38.4	40.6	40	45
									E36	34.0	2	34.1	50.4	52.6	60	60
									E54	54.0	2	54.2	61.5	63.7	70	70
150 (12.5)	208	25.0	149.0	35.0	1.5	10.9	5.5	10.0	None	–	–	–	83.2	88.7	100	110
									E18	13.5	2	37.5	83.2	88.7	100	110
									E24	18.0	2	50.0	88.6	95.5	100	110
									E36	25.5	2	70.8	114.6	121.5	125	125
									E54	40.6	2	112.7	167.0	173.9	175	175
	230	25.0	149.0	35.0	1.5	10.9	5.5	10.0	None	–	–	–	83.2	88.7	100	110
									E18	18.0	2	45.2	83.2	88.7	100	110
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
									E54	54.0	2	135.6	156.0	162.9	175	175
	460	11.8	75.0	16.5	0.8	5.3	2.2	5.0	None	–	–	–	40.1	42.3	50	50
									E18	18.0	2	22.6	40.1	42.7	50	50
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
									E54	54.0	2	67.8	77.8	80.6	90	90
	575	8.6	54.0	12.0	0.6	4.1	1.8	4.0	None	–	–	–	29.9	31.7	35	40
									E18	18.0	2	18.1	31.8	34.0	35	40
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60
									E54	54.0	2	54.2	62.1	64.3	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZH078-150 Hi Static Motor - With Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	12.8	95.0	20.0	1.5	8.2	5.5	10.0	None	–	–	–	50.0	55.5	60	60
									E09	6.8	1	18.9	50.0	55.5	60	60
									E18	13.5	2	37.5	69.6	76.5	70	80
									E24	18.0	2	50.0	85.2	92.1	90	100
									E36	25.5	2	70.8	111.2	118.1	125	125
	230	12.8	95.0	20.0	1.5	8.2	5.5	10.0	None	–	–	–	50.0	55.5	60	60
									E09	9.0	1	22.6	50.0	56.7	60	60
									E18	18.0	2	45.2	76.9	83.8	80	90
									E24	24.0	2	60.2	94.9	101.8	100	110
									E36	34.0	2	85.3	125.0	131.9	125	150
	460	6.4	45.0	10.0	0.8	4.1	2.2	5.0	None	–	–	–	25.1	27.3	30	30
									E09	9.0	1	11.3	25.1	27.7	30	30
									E18	18.0	2	22.6	38.4	41.2	40	45
									E24	24.0	2	30.1	47.5	50.2	50	60
									E36	34.0	2	42.7	62.5	65.2	70	70
	575	5.4	38.0	8.5	0.6	3.6	1.8	4.0	None	–	–	–	21.0	22.8	25	25
									E09	9.0	1	9.0	21.0	22.8	25	25
									E18	18.0	2	18.1	31.2	33.4	35	35
									E24	24.0	2	24.1	38.4	40.6	40	45
									E36	34.0	2	34.1	50.4	52.6	60	60
090 (7.5)	208	14.7	115.0	23.0	1.5	10.9	5.5	10.0	None	–	–	–	57.0	62.5	70	70
									E09	6.8	1	18.9	57.0	62.5	70	70
									E18	13.5	2	37.5	73.0	79.8	80	80
									E24	18.0	2	50.0	88.6	95.5	90	100
									E36	25.5	2	70.8	114.6	121.5	125	125
	230	14.7	115.0	23.0	1.5	10.9	5.5	10.0	None	–	–	–	57.0	62.5	70	70
									E09	9.0	1	22.6	57.0	62.5	70	70
									E18	18.0	2	45.2	80.3	87.1	90	90
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
	460	7.7	50.0	12.0	0.8	5.3	2.2	5.0	None	–	–	–	29.2	31.4	35	35
									E09	9.0	1	11.3	29.2	31.4	35	35
									E18	18.0	2	22.6	39.9	42.7	40	45
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
	575	6.4	40.0	10.0	0.6	4.1	1.8	4.0	None	–	–	–	23.7	25.5	30	30
									E09	9.0	1	9.0	23.7	25.5	30	30
									E18	18.0	2	18.1	31.8	34.0	35	35
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60
102 (8.5)	208	16.0	120.0	25.0	3.5	10.9	5.5	10.0	None	–	–	–	63.9	69.4	70	80
									E09	6.8	1	18.9	63.9	69.4	70	80
									E18	13.5	2	37.5	73.0	79.8	80	80
									E24	18.0	2	50.0	88.6	95.5	90	100
									E36	25.5	2	70.8	114.6	121.5	125	125
	230	16.0	120.0	25.0	3.5	10.9	5.5	10.0	None	–	–	–	63.9	69.4	70	80
									E09	9.0	1	22.6	63.9	69.4	70	80
									E18	18.0	2	45.2	80.3	87.1	90	90
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
	460	8.3	60.0	13.0	1.6	5.3	2.2	5.0	None	–	–	–	32.2	34.4	40	40
									E09	9.0	1	11.3	32.2	34.4	40	40
									E18	18.0	2	22.6	39.9	42.7	40	45
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
	575	6.7	40.0	10.5	1.3	4.1	1.8	4.0	None	–	–	–	25.8	27.6	30	30
									E09	9.0	1	9.0	25.8	27.6	30	30
									E18	18.0	2	18.1	31.8	34.0	35	35
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60

ZH078-150 Hi Static Motor - With Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	3.5	10.9	5.5	10.0	None	–	–	–	68.2	73.7	80	90
									E18	13.5	2	37.5	73.0	79.8	80	90
									E24	18.0	2	50.0	88.6	95.5	90	100
									E36	25.5	2	70.8	114.6	121.5	125	125
									E54	40.6	2	112.7	167.0	173.9	175	175
	230	17.9	120.0	28.0	3.5	10.9	5.5	10.0	None	–	–	–	68.2	73.7	80	90
									E18	18.0	2	45.2	80.3	87.1	90	90
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
									E54	54.0	2	135.6	156.0	162.9	175	175
	460	9.6	70.0	15.0	1.6	5.3	2.2	5.0	None	–	–	–	35.1	37.3	40	45
									E18	18.0	2	22.6	39.9	42.7	40	45
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
									E54	54.0	2	67.8	77.8	80.6	90	90
	575	7.4	53.0	11.5	1.3	4.1	1.8	4.0	None	–	–	–	27.4	29.2	30	35
									E18	18.0	2	18.1	31.8	34.0	35	35
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60
									E54	54.0	2	54.2	62.1	64.3	70	70
150 (12.5)	208	25.0	149.0	35.0	1.5	16.1	5.5	10.0	None	–	–	–	88.4	93.9	110	110
									E18	13.5	2	37.5	88.4	93.9	110	110
									E24	18.0	2	50.0	95.1	102.0	110	110
									E36	25.5	2	70.8	121.1	128.0	125	150
									E54	40.6	2	112.7	173.5	180.4	175	200
	230	25.0	149.0	35.0	1.5	16.1	5.5	10.0	None	–	–	–	88.4	93.9	110	110
									E18	18.0	2	45.2	88.4	93.9	110	110
									E24	24.0	2	60.2	104.8	111.7	110	125
									E36	34.0	2	85.3	134.9	141.7	150	150
									E54	54.0	2	135.6	162.5	169.4	175	175
	460	11.8	75.0	16.5	0.8	8.1	2.2	5.0	None	–	–	–	42.9	45.1	50	50
									E18	18.0	2	22.6	43.4	46.2	50	50
									E24	24.0	2	30.1	52.5	55.2	60	60
									E36	34.0	2	42.7	67.5	70.2	70	80
									E54	54.0	2	67.8	81.3	84.1	90	90
	575	8.6	54.0	12.0	0.6	6.0	1.8	4.0	None	–	–	–	31.8	33.6	40	40
									E18	18.0	2	18.1	34.2	36.4	40	40
									E24	24.0	2	24.1	41.4	43.6	45	45
									E36	34.0	2	34.1	53.4	55.6	60	60
									E54	54.0	2	54.2	64.5	66.7	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZR078-150 Standard Motor - Without Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	6.2	5.5	0.0	None	-	-	-	40.9	46.4	50	60
									E09	6.8	1	18.9	40.9	46.4	50	60
									E18	13.5	2	37.5	54.6	61.5	60	70
									E24	18.0	2	50.0	70.2	77.1	80	80
									E36	25.5	2	70.8	96.2	103.1	100	110
	230	14.1	95.0	22.0	1.5	6.2	5.5	0.0	None	-	-	-	40.9	46.4	50	60
									E09	9.0	1	22.6	40.9	46.4	50	60
									E18	18.0	2	45.2	61.9	68.8	70	70
									E24	24.0	2	60.2	79.9	86.8	80	90
									E36	34.0	2	85.3	110.0	116.9	110	125
	460	6.4	45.0	10.0	0.8	3.1	2.2	0.0	None	-	-	-	19.1	21.3	25	25
									E09	9.0	1	11.3	19.1	21.3	25	25
									E18	18.0	2	22.6	30.9	33.7	35	35
									E24	24.0	2	30.1	40.0	42.7	40	45
									E36	34.0	2	42.7	55.0	57.7	60	60
	575	5.4	38.0	8.5	0.6	2.4	1.8	0.0	None	-	-	-	15.8	17.6	20	20
									E09	9.0	1	9.0	15.8	17.6	20	20
									E18	18.0	2	18.1	24.7	26.9	25	30
									E24	24.0	2	24.1	31.9	34.1	35	35
									E36	34.0	2	34.1	43.9	46.1	45	50
090 (7.5)	208	14.7	115.0	23.0	1.5	6.2	5.5	0.0	None	-	-	-	42.3	47.8	50	60
									E09	6.8	1	18.9	42.3	47.8	50	60
									E18	13.5	2	37.5	54.6	61.5	60	70
									E24	18.0	2	50.0	70.2	77.1	80	80
									E36	25.5	2	70.8	96.2	103.1	100	110
	230	14.7	115.0	23.0	1.5	6.2	5.5	0.0	None	-	-	-	42.3	47.8	50	60
									E09	9.0	1	22.6	42.3	47.8	50	60
									E18	18.0	2	45.2	61.9	68.8	70	70
									E24	24.0	2	60.2	79.9	86.8	80	90
									E36	34.0	2	85.3	110.0	116.9	110	125
	460	7.7	50.0	12.0	0.8	3.1	2.2	0.0	None	-	-	-	22.0	24.2	25	30
									E09	9.0	1	11.3	22.0	24.2	25	30
									E18	18.0	2	22.6	30.9	33.7	35	35
									E24	24.0	2	30.1	40.0	42.7	40	45
									E36	34.0	2	42.7	55.0	57.7	60	60
	575	6.4	40.0	10.0	0.6	2.4	1.8	0.0	None	-	-	-	18.0	19.8	20	25
									E09	9.0	1	9.0	18.0	19.8	20	25
									E18	18.0	2	18.1	24.7	26.9	25	30
									E24	24.0	2	24.1	31.9	34.1	35	35
									E36	34.0	2	34.1	43.9	46.1	45	50
102 (8.5)	208	16.0	120.0	25.0	1.5	8.2	5.5	0.0	None	-	-	-	47.2	52.7	60	60
									E09	6.8	1	18.9	47.2	52.7	60	60
									E18	13.5	2	37.5	57.1	64.0	60	70
									E24	18.0	2	50.0	72.7	79.6	80	80
									E36	25.5	2	70.8	98.7	105.6	100	110
	230	16.0	120.0	25.0	1.5	8.2	5.5	0.0	None	-	-	-	47.2	52.7	60	60
									E09	9.0	1	22.6	47.2	52.7	60	60
									E18	18.0	2	45.2	64.4	71.3	70	80
									E24	24.0	2	60.2	82.4	89.3	90	90
									E36	34.0	2	85.3	112.5	119.4	125	125
	460	8.3	60.0	13.0	0.8	4.1	2.2	0.0	None	-	-	-	24.4	26.6	30	30
									E09	9.0	1	11.3	24.4	26.6	30	30
									E18	18.0	2	22.6	32.2	34.9	35	35
									E24	24.0	2	30.1	41.2	44.0	45	45
									E36	34.0	2	42.7	56.2	59.0	60	60
	575	6.7	40.0	10.5	0.6	3.6	1.8	0.0	None	-	-	-	19.9	21.7	25	25
									E09	9.0	1	9.0	19.9	21.7	25	25
									E18	18.0	2	18.1	26.2	28.4	30	30
									E24	24.0	2	24.1	33.4	35.6	35	40
									E36	34.0	2	34.1	45.4	47.6	50	50

ZR078-150 Standard Motor - Without Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	8.2	5.5	0.0	None	-	-	-	51.5	57.0	60	70
									E18	13.5	2	37.5	57.1	64.0	60	70
									E24	18.0	2	50.0	72.7	79.6	80	80
									E36	25.5	2	70.8	98.7	105.6	100	110
									E54	40.6	2	112.7	151.1	158.0	175	175
	230	17.9	120.0	28.0	1.5	8.2	5.5	0.0	None	-	-	-	51.5	57.0	60	70
									E18	18.0	2	45.2	64.4	71.3	70	80
									E24	24.0	2	60.2	82.4	89.3	90	90
									E36	34.0	2	85.3	112.5	119.4	125	125
									E54	54.0	2	135.6	140.2	147.0	150	175
	460	9.6	70.0	15.0	0.8	4.1	2.2	0.0	None	-	-	-	27.3	29.5	35	35
									E18	18.0	2	22.6	32.2	34.9	35	35
									E24	24.0	2	30.1	41.2	44.0	45	45
									E36	34.0	2	42.7	56.2	59.0	60	60
									E54	54.0	2	67.8	70.1	72.8	80	80
	575	7.4	53.0	11.5	0.6	3.6	1.8	0.0	None	-	-	-	21.5	23.3	25	30
									E18	18.0	2	18.1	26.2	28.4	30	30
									E24	24.0	2	24.1	33.4	35.6	35	40
									E36	34.0	2	34.1	45.4	47.6	50	50
									E54	54.0	2	54.2	56.5	58.7	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	10.9	5.5	0.0	None	-	-	-	68.9	74.4	90	90
									E18	13.5	2	37.5	68.9	74.4	90	90
									E24	18.0	2	50.0	76.1	83.0	90	90
									E36	25.5	2	70.8	102.1	109.0	110	110
									E54	40.6	2	112.7	154.5	161.4	175	175
	230	23.1	160.0	36.0	1.5	10.9	5.5	0.0	None	-	-	-	68.9	74.4	90	90
									E18	18.0	2	45.2	68.9	74.6	90	90
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
									E54	54.0	2	135.6	143.5	150.4	175	175
	460	12.2	87.0	19.0	0.8	5.3	2.2	0.0	None	-	-	-	36.0	38.2	45	50
									E18	18.0	2	22.6	36.0	38.2	45	50
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
									E54	54.0	2	67.8	71.6	74.3	80	80
	575	8.7	62.0	13.5	0.6	4.1	1.8	0.0	None	-	-	-	26.1	27.9	30	35
									E18	18.0	2	18.1	26.8	29.0	30	35
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50
									E54	54.0	2	54.2	57.1	59.3	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZR078-150 Hi Static Motor - Without Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	8.2	5.5	0.0	None	-	-	-	42.9	48.4	50	60
									E09	6.8	1	18.9	42.9	48.4	50	60
									E18	13.5	2	37.5	57.1	64.0	60	70
									E24	18.0	2	50.0	72.7	79.6	80	80
									E36	25.5	2	70.8	98.7	105.6	100	110
	230	14.1	95.0	22.0	1.5	8.2	5.5	0.0	None	-	-	-	42.9	48.4	50	60
									E09	9.0	1	22.6	42.9	48.4	50	60
									E18	18.0	2	45.2	64.4	71.3	70	80
									E24	24.0	2	60.2	82.4	89.3	90	90
									E36	34.0	2	85.3	112.5	119.4	125	125
	460	6.4	45.0	10.0	0.8	4.1	2.2	0.0	None	-	-	-	20.1	22.3	25	25
									E09	9.0	1	11.3	20.1	22.3	25	25
									E18	18.0	2	22.6	32.2	34.9	35	35
									E24	24.0	2	30.1	41.2	44.0	45	45
									E36	34.0	2	42.7	56.2	59.0	60	60
	575	5.4	38.0	8.5	0.6	3.6	1.8	0.0	None	-	-	-	17.0	18.8	20	20
									E09	9.0	1	9.0	17.0	18.8	20	20
									E18	18.0	2	18.1	26.2	28.4	30	30
									E24	24.0	2	24.1	33.4	35.6	35	40
									E36	34.0	2	34.1	45.4	47.6	50	50
090 (7.5)	208	14.7	115.0	23.0	1.5	10.9	5.5	0.0	None	-	-	-	47.0	52.5	60	60
									E09	6.8	1	18.9	47.0	52.5	60	60
									E18	13.5	2	37.5	60.5	67.3	70	70
									E24	18.0	2	50.0	76.1	83.0	80	90
									E36	25.5	2	70.8	102.1	109.0	110	110
	230	14.7	115.0	23.0	1.5	10.9	5.5	0.0	None	-	-	-	47.0	52.5	60	60
									E09	9.0	1	22.6	47.0	52.5	60	60
									E18	18.0	2	45.2	67.8	74.6	70	80
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
	460	7.7	50.0	12.0	0.8	5.3	2.2	0.0	None	-	-	-	24.2	26.4	30	30
									E09	9.0	1	11.3	24.2	26.4	30	30
									E18	18.0	2	22.6	33.7	36.4	35	40
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
	575	6.4	40.0	10.0	0.6	4.1	1.8	0.0	None	-	-	-	19.7	21.5	25	25
									E09	9.0	1	9.0	19.7	21.5	25	25
									E18	18.0	2	18.1	26.8	29.0	30	30
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50
102 (8.5)	208	16.0	120.0	25.0	1.5	10.9	5.5	0.0	None	-	-	-	49.9	55.4	60	70
									E09	6.8	1	18.9	49.9	55.4	60	70
									E18	13.5	2	37.5	60.5	67.3	70	70
									E24	18.0	2	50.0	76.1	83.0	80	90
									E36	25.5	2	70.8	102.1	109.0	110	110
	230	16.0	120.0	25.0	1.5	10.9	5.5	0.0	None	-	-	-	49.9	55.4	60	70
									E09	9.0	1	22.6	49.9	55.4	60	70
									E18	18.0	2	45.2	67.8	74.6	70	80
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
	460	8.3	60.0	13.0	0.8	5.3	2.2	0.0	None	-	-	-	25.6	27.8	30	35
									E09	9.0	1	11.3	25.6	27.8	30	35
									E18	18.0	2	22.6	33.7	36.4	35	40
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
	575	6.7	40.0	10.5	0.6	4.1	1.8	0.0	None	-	-	-	20.4	22.2	25	25
									E09	9.0	1	9.0	20.4	22.2	25	25
									E18	18.0	2	18.1	26.8	29.0	30	30
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50

ZR078-150 Hi Static Motor - Without Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	10.9	5.5	0.0	None	-	-	-	54.2	59.7	70	70
									E18	13.5	2	37.5	60.5	67.3	70	70
									E24	18.0	2	50.0	76.1	83.0	80	90
									E36	25.5	2	70.8	102.1	109.0	110	110
									E54	40.6	2	112.7	154.5	161.4	175	175
	230	17.9	120.0	28.0	1.5	10.9	5.5	0.0	None	-	-	-	54.2	59.7	70	70
									E18	18.0	2	45.2	67.8	74.6	70	80
									E24	24.0	2	60.2	85.8	92.7	90	100
									E36	34.0	2	85.3	115.9	122.7	125	125
									E54	54.0	2	135.6	143.5	150.4	175	175
	460	9.6	70.0	15.0	0.8	5.3	2.2	0.0	None	-	-	-	28.5	30.7	35	40
									E18	18.0	2	22.6	33.7	36.4	35	40
									E24	24.0	2	30.1	42.7	45.5	45	50
									E36	34.0	2	42.7	57.7	60.5	60	70
									E54	54.0	2	67.8	71.6	74.3	80	80
	575	7.4	53.0	11.5	0.6	4.1	1.8	0.0	None	-	-	-	22.0	23.8	25	30
									E18	18.0	2	18.1	26.8	29.0	30	30
									E24	24.0	2	24.1	34.0	36.2	35	40
									E36	34.0	2	34.1	46.0	48.3	50	50
									E54	54.0	2	54.2	57.1	59.3	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	16.1	5.5	0.0	None	-	-	-	74.1	79.6	90	100
									E18	13.5	2	37.5	74.1	79.6	90	100
									E24	18.0	2	50.0	82.6	89.5	90	100
									E36	25.5	2	70.8	108.6	115.5	110	125
									E54	40.6	2	112.7	161.0	167.9	175	175
	230	23.1	160.0	36.0	1.5	16.1	5.5	0.0	None	-	-	-	74.1	79.6	90	100
									E18	18.0	2	45.2	74.3	81.1	90	100
									E24	24.0	2	60.2	92.3	99.2	100	100
									E36	34.0	2	85.3	122.4	129.2	125	150
									E54	54.0	2	135.6	150.0	156.9	175	175
	460	12.2	87.0	19.0	0.8	8.1	2.2	0.0	None	-	-	-	38.8	41.0	50	50
									E18	18.0	2	22.6	38.8	41.0	50	50
									E24	24.0	2	30.1	46.2	49.0	50	50
									E36	34.0	2	42.7	61.2	64.0	70	70
									E54	54.0	2	67.8	75.1	77.8	90	90
	575	8.7	62.0	13.5	0.6	6.0	1.8	0.0	None	-	-	-	28.0	29.8	35	35
									E18	18.0	2	18.1	29.2	31.4	35	35
									E24	24.0	2	24.1	36.4	38.6	40	40
									E36	34.0	2	34.1	48.4	50.6	50	60
									E54	54.0	2	54.2	59.5	61.7	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZR078-150 Standard Motor - With Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	6.2	5.5	10.0	None	-	-	-	50.9	56.4	60	70
									E09	6.8	1	18.9	50.9	56.4	60	70
									E18	13.5	2	37.5	67.1	74.0	70	80
									E24	18.0	2	50.0	82.7	89.6	90	90
									E36	25.5	2	70.8	108.7	115.6	110	125
	230	14.1	95.0	22.0	1.5	6.2	5.5	10.0	None	-	-	-	50.9	56.4	60	70
									E09	9.0	1	22.6	50.9	56.4	60	70
									E18	18.0	2	45.2	74.4	81.3	80	90
									E24	24.0	2	60.2	92.4	99.3	100	100
									E36	34.0	2	85.3	122.5	129.4	125	150
	460	6.4	45.0	10.0	0.8	3.1	2.2	5.0	None	-	-	-	24.1	26.3	30	30
									E09	9.0	1	11.3	24.1	26.4	30	30
									E18	18.0	2	22.6	37.2	39.9	40	40
									E24	24.0	2	30.1	46.2	49.0	50	50
									E36	34.0	2	42.7	61.2	64.0	70	70
	575	5.4	38.0	8.5	0.6	2.4	1.8	4.0	None	-	-	-	19.8	21.6	25	25
									E09	9.0	1	9.0	19.8	21.6	25	25
									E18	18.0	2	18.1	29.7	31.9	30	35
									E24	24.0	2	24.1	36.9	39.1	40	40
									E36	34.0	2	34.1	48.9	51.1	50	60
090 (7.5)	208	14.7	115.0	23.0	1.5	6.2	5.5	10.0	None	-	-	-	52.3	57.8	60	70
									E09	6.8	1	18.9	52.3	57.8	60	70
									E18	13.5	2	37.5	67.1	74.0	70	80
									E24	18.0	2	50.0	82.7	89.6	90	90
									E36	25.5	2	70.8	108.7	115.6	110	125
	230	14.7	115.0	23.0	1.5	6.2	5.5	10.0	None	-	-	-	52.3	57.8	60	70
									E09	9.0	1	22.6	52.3	57.8	60	70
									E18	18.0	2	45.2	74.4	81.3	80	90
									E24	24.0	2	60.2	92.4	99.3	100	100
									E36	34.0	2	85.3	122.5	129.4	125	150
	460	7.7	50.0	12.0	0.8	3.1	2.2	5.0	None	-	-	-	27.0	29.2	30	35
									E09	9.0	1	11.3	27.0	29.2	30	35
									E18	18.0	2	22.6	37.2	39.9	40	40
									E24	24.0	2	30.1	46.2	49.0	50	50
									E36	34.0	2	42.7	61.2	64.0	70	70
	575	6.4	40.0	10.0	0.6	2.4	1.8	4.0	None	-	-	-	22.0	23.8	25	30
									E09	9.0	1	9.0	22.0	23.8	25	30
									E18	18.0	2	18.1	29.7	31.9	30	35
									E24	24.0	2	24.1	36.9	39.1	40	40
									E36	34.0	2	34.1	48.9	51.1	50	60
102 (8.5)	208	16.0	120.0	25.0	1.5	8.2	5.5	10.0	None	-	-	-	57.2	62.7	70	70
									E09	6.8	1	18.9	57.2	62.7	70	70
									E18	13.5	2	37.5	69.6	76.5	70	80
									E24	18.0	2	50.0	85.2	92.1	90	100
									E36	25.5	2	70.8	111.2	118.1	125	125
	230	16.0	120.0	25.0	1.5	8.2	5.5	10.0	None	-	-	-	57.2	62.7	70	70
									E09	9.0	1	22.6	57.2	62.7	70	70
									E18	18.0	2	45.2	76.9	83.8	80	90
									E24	24.0	2	60.2	94.9	101.8	100	110
									E36	34.0	2	85.3	125.0	131.9	125	150
	460	8.3	60.0	13.0	0.8	4.1	2.2	5.0	None	-	-	-	29.4	31.6	35	35
									E09	9.0	1	11.3	29.4	31.6	35	35
									E18	18.0	2	22.6	38.4	41.2	40	45
									E24	24.0	2	30.1	47.5	50.2	50	60
									E36	34.0	2	42.7	62.5	65.2	70	70
	575	6.7	40.0	10.5	0.6	3.6	1.8	4.0	None	-	-	-	23.9	25.7	30	30
									E09	9.0	1	9.0	23.9	25.7	30	30
									E18	18.0	2	18.1	31.2	33.4	35	35
									E24	24.0	2	24.1	38.4	40.6	40	45
									E36	34.0	2	34.1	50.4	52.6	60	60

ZR078-150 Standard Motor - With Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	8.2	5.5	10.0	None	-	-	-	61.5	67.0	70	80
									E18	13.5	2	37.5	69.6	76.5	70	80
									E24	18.0	2	50.0	85.2	92.1	90	100
									E36	25.5	2	70.8	111.2	118.1	125	125
									E54	40.6	2	112.7	163.6	170.5	175	175
	230	17.9	120.0	28.0	1.5	8.2	5.5	10.0	None	-	-	-	61.5	67.0	70	80
									E18	18.0	2	45.2	76.9	83.8	80	90
									E24	24.0	2	60.2	94.9	101.8	100	110
									E36	34.0	2	85.3	125.0	131.9	125	150
									E54	54.0	2	135.6	152.7	159.5	175	175
	460	9.6	70.0	15.0	0.8	4.1	2.2	5.0	None	-	-	-	32.3	34.5	40	40
									E18	18.0	2	22.6	38.4	41.2	40	45
									E24	24.0	2	30.1	47.5	50.2	50	60
									E36	34.0	2	42.7	62.5	65.2	70	70
									E54	54.0	2	67.8	76.3	79.1	90	90
	575	7.4	53.0	11.5	0.6	3.6	1.8	4.0	None	-	-	-	25.5	27.3	30	30
									E18	18.0	2	18.1	31.2	33.4	35	35
									E24	24.0	2	24.1	38.4	40.6	40	45
									E36	34.0	2	34.1	50.4	52.6	60	60
									E54	54.0	2	54.2	61.5	63.7	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	10.9	5.5	10.0	None	-	-	-	78.9	84.4	100	100
									E18	13.5	2	37.5	78.9	84.4	100	100
									E24	18.0	2	50.0	88.6	95.5	100	100
									E36	25.5	2	70.8	114.6	121.5	125	125
									E54	40.6	2	112.7	167.0	173.9	175	175
	230	23.1	160.0	36.0	1.5	10.9	5.5	10.0	None	-	-	-	78.9	84.4	100	100
									E18	18.0	2	45.2	80.3	87.1	100	100
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
									E54	54.0	2	135.6	156.0	162.9	175	175
	460	12.2	87.0	19.0	0.8	5.3	2.2	5.0	None	-	-	-	41.0	43.2	50	50
									E18	18.0	2	22.6	41.0	43.2	50	50
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
									E54	54.0	2	67.8	77.8	80.6	90	90
	575	8.7	62.0	13.5	0.6	4.1	1.8	4.0	None	-	-	-	30.1	31.9	35	40
									E18	18.0	2	18.1	31.8	34.0	35	40
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60
									E54	54.0	2	54.2	62.1	64.3	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

ZR078-150 Hi Static Motor - With Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	8.2	5.5	10.0	None	-	-	-	52.9	58.4	60	70
									E09	6.8	1	18.9	52.9	58.4	60	70
									E18	13.5	2	37.5	69.6	76.5	70	80
									E24	18.0	2	50.0	85.2	92.1	90	100
									E36	25.5	2	70.8	111.2	118.1	125	125
	230	14.1	95.0	22.0	1.5	8.2	5.5	10.0	None	-	-	-	52.9	58.4	60	70
									E09	9.0	1	22.6	52.9	58.4	60	70
									E18	18.0	2	45.2	76.9	83.8	80	90
									E24	24.0	2	60.2	94.9	101.8	100	110
									E36	34.0	2	85.3	125.0	131.9	125	150
	460	6.4	45.0	10.0	0.8	4.1	2.2	5.0	None	-	-	-	25.1	27.3	30	30
									E09	9.0	1	11.3	25.1	27.7	30	30
									E18	18.0	2	22.6	38.4	41.2	40	45
									E24	24.0	2	30.1	47.5	50.2	50	60
									E36	34.0	2	42.7	62.5	65.2	70	70
	575	5.4	38.0	8.5	0.6	3.6	1.8	4.0	None	-	-	-	21.0	22.8	25	25
									E09	9.0	1	9.0	21.0	22.8	25	25
									E18	18.0	2	18.1	31.2	33.4	35	35
									E24	24.0	2	24.1	38.4	40.6	40	45
									E36	34.0	2	34.1	50.4	52.6	60	60
090 (7.5)	208	14.7	115.0	23.0	1.5	10.9	5.5	10.0	None	-	-	-	57.0	62.5	70	70
									E09	6.8	1	18.9	57.0	62.5	70	70
									E18	13.5	2	37.5	73.0	79.8	80	80
									E24	18.0	2	50.0	88.6	95.5	90	100
									E36	25.5	2	70.8	114.6	121.5	125	125
	230	14.7	115.0	23.0	1.5	10.9	5.5	10.0	None	-	-	-	57.0	62.5	70	70
									E09	9.0	1	22.6	57.0	62.5	70	70
									E18	18.0	2	45.2	80.3	87.1	90	90
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
	460	7.7	50.0	12.0	0.8	5.3	2.2	5.0	None	-	-	-	29.2	31.4	35	35
									E09	9.0	1	11.3	29.2	31.4	35	35
									E18	18.0	2	22.6	39.9	42.7	40	45
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
	575	6.4	40.0	10.0	0.6	4.1	1.8	4.0	None	-	-	-	23.7	25.5	30	30
									E09	9.0	1	9.0	23.7	25.5	30	30
									E18	18.0	2	18.1	31.8	34.0	35	35
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60
102 (8.5)	208	16.0	120.0	25.0	1.5	10.9	5.5	10.0	None	-	-	-	59.9	65.4	70	80
									E09	6.8	1	18.9	59.9	65.4	70	80
									E18	13.5	2	37.5	73.0	79.8	80	80
									E24	18.0	2	50.0	88.6	95.5	90	100
									E36	25.5	2	70.8	114.6	121.5	125	125
	230	16.0	120.0	25.0	1.5	10.9	5.5	10.0	None	-	-	-	59.9	65.4	70	80
									E09	9.0	1	22.6	59.9	65.4	70	80
									E18	18.0	2	45.2	80.3	87.1	90	90
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
	460	8.3	60.0	13.0	0.8	5.3	2.2	5.0	None	-	-	-	30.6	32.8	35	40
									E09	9.0	1	11.3	30.6	32.8	35	40
									E18	18.0	2	22.6	39.9	42.7	40	45
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
	575	6.7	40.0	10.5	0.6	4.1	1.8	4.0	None	-	-	-	24.4	26.2	30	30
									E09	9.0	1	9.0	24.4	26.2	30	30
									E18	18.0	2	18.1	31.8	34.0	35	35
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60

ZR078-150 Hi Static Motor - With Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	10.9	5.5	10.0	None	-	-	-	64.2	69.7	80	80
									E18	13.5	2	37.5	73.0	79.8	80	80
									E24	18.0	2	50.0	88.6	95.5	90	100
									E36	25.5	2	70.8	114.6	121.5	125	125
									E54	40.6	2	112.7	167.0	173.9	175	175
	230	17.9	120.0	28.0	1.5	10.9	5.5	10.0	None	-	-	-	64.2	69.7	80	80
									E18	18.0	2	45.2	80.3	87.1	90	90
									E24	24.0	2	60.2	98.3	105.2	100	110
									E36	34.0	2	85.3	128.4	135.2	150	150
									E54	54.0	2	135.6	156.0	162.9	175	175
	460	9.6	70.0	15.0	0.8	5.3	2.2	5.0	None	-	-	-	33.5	35.7	40	45
									E18	18.0	2	22.6	39.9	42.7	40	45
									E24	24.0	2	30.1	49.0	51.7	50	60
									E36	34.0	2	42.7	64.0	66.7	70	70
									E54	54.0	2	67.8	77.8	80.6	90	90
	575	7.4	53.0	11.5	0.6	4.1	1.8	4.0	None	-	-	-	26.0	27.8	30	35
									E18	18.0	2	18.1	31.8	34.0	35	35
									E24	24.0	2	24.1	39.0	41.2	40	45
									E36	34.0	2	34.1	51.0	53.3	60	60
									E54	54.0	2	54.2	62.1	64.3	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	16.1	5.5	10.0	None	-	-	-	84.1	89.6	100	110
									E18	13.5	2	37.5	84.1	89.6	100	110
									E24	18.0	2	50.0	95.1	102.0	100	110
									E36	25.5	2	70.8	121.1	128.0	125	150
									E54	40.6	2	112.7	173.5	180.4	175	200
	230	23.1	160.0	36.0	1.5	16.1	5.5	10.0	None	-	-	-	84.1	89.6	100	110
									E18	18.0	2	45.2	86.8	93.6	100	110
									E24	24.0	2	60.2	104.8	111.7	110	125
									E36	34.0	2	85.3	134.9	141.7	150	150
									E54	54.0	2	135.6	162.5	169.4	175	175
	460	12.2	87.0	19.0	0.8	8.1	2.2	5.0	None	-	-	-	43.8	46.0	50	50
									E18	18.0	2	22.6	43.8	46.2	50	50
									E24	24.0	2	30.1	52.5	55.2	60	60
									E36	34.0	2	42.7	67.5	70.2	70	80
									E54	54.0	2	67.8	81.3	84.1	90	90
	575	8.7	62.0	13.5	0.6	6.0	1.8	4.0	None	-	-	-	32.0	33.8	40	40
									E18	18.0	2	18.1	34.2	36.4	40	40
									E24	24.0	2	24.1	41.4	43.6	45	45
									E36	34.0	2	34.1	53.4	55.6	60	60
									E54	54.0	2	54.2	64.5	66.7	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

XP078-150 Standard Motor - Without Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	6.2	5.5	0.0	None	-	-	-	40.9	46.4	50	60
									E09	6.8	1	18.9	64.5	70.0	70	70
									E18	13.5	2	37.5	87.8	93.3	90	100
									E24	18.0	2	50.0	103.4	108.9	110	110
									E36	25.5	2	70.8	129.4	134.9	150	150
	230	14.1	95.0	22.0	1.5	6.2	5.5	0.0	None	-	-	-	40.9	46.4	50	60
									E09	9.0	1	22.6	68.0	73.5	70	80
									E18	18.0	2	45.2	95.1	100.6	100	110
									E24	24.0	2	60.2	113.1	118.6	125	125
									E36	34.0	2	85.3	143.2	148.7	150	150
	460	6.4	45.0	10.0	0.8	3.1	2.2	0.0	None	-	-	-	19.1	21.3	25	25
									E09	9.0	1	11.3	32.6	34.8	35	35
									E18	18.0	2	22.6	46.2	48.4	50	50
									E24	24.0	2	30.1	55.2	57.4	60	60
									E36	34.0	2	42.7	70.2	72.4	80	80
	575	5.4	38.0	8.5	0.6	2.4	1.8	0.0	None	-	-	-	15.8	17.6	20	20
									E09	9.0	1	9.0	26.6	28.4	30	30
									E18	18.0	2	18.1	37.4	39.2	40	40
									E24	24.0	2	24.1	44.6	46.4	45	50
									E36	34.0	2	34.1	56.6	58.4	60	60
090 (7.5)	208	15.6	83.1	21.4	1.5	6.2	5.5	0.0	None	-	-	-	44.3	49.8	50	60
									E09	6.8	1	18.9	67.9	73.4	70	80
									E18	13.5	2	37.5	91.1	96.6	100	100
									E24	18.0	2	50.0	106.8	112.3	110	125
									E36	25.5	2	70.8	132.8	138.3	150	150
	230	15.6	83.1	21.4	1.5	6.2	5.5	0.0	None	-	-	-	44.3	49.8	50	60
									E09	9.0	1	22.6	71.4	76.9	80	80
									E18	18.0	2	45.2	98.4	103.9	100	110
									E24	24.0	2	60.2	116.5	122.0	125	125
									E36	34.0	2	85.3	146.5	152.0	150	175
	460	6.9	41.0	9.7	0.8	3.1	2.2	0.0	None	-	-	-	20.2	22.4	25	25
									E09	9.0	1	11.3	33.8	36.0	35	40
									E18	18.0	2	22.6	47.3	49.5	50	50
									E24	24.0	2	30.1	56.3	58.5	60	60
									E36	34.0	2	42.7	71.3	73.5	80	80
	575	5.4	33.0	7.5	0.6	2.4	1.8	0.0	None	-	-	-	15.8	17.6	20	20
									E09	9.0	1	9.0	26.6	28.4	30	30
									E18	18.0	2	18.1	37.4	39.2	40	40
									E24	24.0	2	24.1	44.6	46.4	45	50
									E36	34.0	2	34.1	56.6	58.4	60	60
102 (8.5)	208	16.7	120.0	26.0	1.5	8.2	5.5	0.0	None	-	-	-	48.8	54.3	60	70
									E09	6.8	1	18.9	72.4	77.9	80	80
									E18	13.5	2	37.5	95.6	101.1	100	110
									E24	18.0	2	50.0	111.2	116.7	125	125
									E36	25.5	2	70.8	137.3	142.8	150	150
	230	16.7	120.0	26.0	1.5	8.2	5.5	0.0	None	-	-	-	48.8	54.3	60	70
									E09	9.0	1	22.6	75.8	81.3	80	90
									E18	18.0	2	45.2	102.9	108.4	110	110
									E24	24.0	2	60.2	120.9	126.4	125	150
									E36	34.0	2	85.3	151.0	156.5	175	175
	460	8.7	60.0	13.5	0.8	4.1	2.2	0.0	None	-	-	-	25.3	27.5	30	35
									E09	9.0	1	11.3	38.8	41.0	40	45
									E18	18.0	2	22.6	52.3	54.5	60	60
									E24	24.0	2	30.1	61.4	63.6	70	70
									E36	34.0	2	42.7	76.4	78.6	80	80
	575	6.7	42.0	10.5	0.6	3.6	1.8	0.0	None	-	-	-	19.9	21.7	25	25
									E09	9.0	1	9.0	30.7	32.5	35	35
									E18	18.0	2	18.1	41.5	43.3	45	45
									E24	24.0	2	24.1	48.7	50.5	50	60
									E36	34.0	2	34.1	60.8	62.6	70	70

XP078-150 Standard Motor - Without Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	8.2	5.5	0.0	None	-	-	-	51.5	57.0	60	70
									E18	13.5	2	37.5	98.3	103.8	100	110
									E24	18.0	2	50.0	113.9	119.4	125	125
									E36	25.5	2	70.8	140.0	145.5	150	150
									E54	40.6	2	112.7	151.1	158.0	175	175
	230	17.9	120.0	28.0	1.5	8.2	5.5	0.0	None	-	-	-	51.5	57.0	60	70
									E18	18.0	2	45.2	105.6	111.1	110	125
									E24	24.0	2	60.2	123.6	129.1	125	150
									E36	34.0	2	85.3	153.7	159.2	175	175
									E54	54.0	2	135.6	153.7	159.2	175	175
	460	9.6	70.0	15.0	0.8	4.1	2.2	0.0	None	-	-	-	27.3	29.5	35	35
									E18	18.0	2	22.6	54.4	56.6	60	60
									E24	24.0	2	30.1	63.4	65.6	70	70
									E36	34.0	2	42.7	78.4	80.6	80	90
									E54	54.0	2	67.8	78.4	80.6	80	90
	575	7.4	53.0	11.5	0.6	3.6	1.8	0.0	None	-	-	-	21.5	23.3	25	30
									E18	18.0	2	18.1	43.1	44.9	45	45
									E24	24.0	2	24.1	50.3	52.1	60	60
									E36	34.0	2	34.1	62.3	64.1	70	70
									E54	54.0	2	54.2	62.3	64.1	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	10.9	5.5	0.0	None	-	-	-	68.9	74.4	90	90
									E18	13.5	2	37.5	115.7	121.2	125	125
									E24	18.0	2	50.0	131.3	136.8	150	150
									E36	25.5	2	70.8	157.4	162.9	175	175
									E54	40.6	2	112.7	157.4	162.9	175	175
	230	23.1	160.0	36.0	1.5	10.9	5.5	0.0	None	-	-	-	68.9	74.4	90	90
									E18	18.0	2	45.2	123.0	128.5	125	150
									E24	24.0	2	60.2	141.0	146.5	150	150
									E36	34.0	2	85.3	171.1	176.6	175	200
									E54	54.0	2	135.6	171.1	176.6	175	200
	460	12.2	87.0	19.0	0.8	5.3	2.2	0.0	None	-	-	-	36.0	38.2	45	50
									E18	18.0	2	22.6	63.0	65.2	70	70
									E24	24.0	2	30.1	72.0	74.2	80	80
									E36	34.0	2	42.7	87.1	89.3	90	90
									E54	54.0	2	67.8	87.1	89.3	90	90
	575	8.7	62.0	13.5	0.6	4.1	1.8	0.0	None	-	-	-	26.1	27.9	30	35
									E18	18.0	2	18.1	47.7	49.5	50	50
									E24	24.0	2	24.1	54.9	56.7	60	60
									E36	34.0	2	34.1	67.0	68.8	70	70
									E54	54.0	2	54.2	67.0	68.8	70	70

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

XP078-150 Hi Static Motor - Without Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	8.2	5.5	0.0	None	-	-	-	42.9	48.4	50	60
									E09	6.8	1	18.9	66.5	72.0	70	80
									E18	13.5	2	37.5	89.8	95.3	90	100
									E24	18.0	2	50.0	105.4	110.9	110	125
									E36	25.5	2	70.8	131.4	136.9	150	150
	230	14.1	95.0	22.0	1.5	8.2	5.5	0.0	None	-	-	-	42.9	48.4	50	60
									E09	9.0	1	22.6	70.0	75.5	70	80
									E18	18.0	2	45.2	97.1	102.6	100	110
									E24	24.0	2	60.2	115.1	120.6	125	125
									E36	34.0	2	85.3	145.2	150.7	150	175
	460	6.4	45.0	10.0	0.8	4.1	2.2	0.0	None	-	-	-	20.1	22.3	25	25
									E09	9.0	1	11.3	33.6	35.8	35	40
									E18	18.0	2	22.6	47.2	49.4	50	50
									E24	24.0	2	30.1	56.2	58.4	60	60
									E36	34.0	2	42.7	71.2	73.4	80	80
	575	5.4	38.0	8.5	0.6	3.6	1.8	0.0	None	-	-	-	17.0	18.8	20	20
									E09	9.0	1	9.0	27.8	29.6	30	30
									E18	18.0	2	18.1	38.6	40.4	40	45
									E24	24.0	2	24.1	45.8	47.6	50	50
									E36	34.0	2	34.1	57.8	59.6	60	60
090 (7.5)	208	15.6	83.1	21.4	1.5	10.9	5.5	0.0	None	-	-	-	49.0	54.5	60	70
									E09	6.8	1	18.9	72.6	78.1	80	80
									E18	13.5	2	37.5	95.8	101.3	100	110
									E24	18.0	2	50.0	111.5	117.0	125	125
									E36	25.5	2	70.8	137.5	143.0	150	150
	230	15.6	83.1	21.4	1.5	10.9	5.5	0.0	None	-	-	-	49.0	54.5	60	70
									E09	9.0	1	22.6	76.1	81.6	80	90
									E18	18.0	2	45.2	103.1	108.6	110	110
									E24	24.0	2	60.2	121.2	126.7	125	150
									E36	34.0	2	85.3	151.2	156.7	175	175
	460	6.9	41.0	9.7	0.8	5.3	2.2	0.0	None	-	-	-	22.4	24.6	25	30
									E09	9.0	1	11.3	36.0	38.2	40	40
									E18	18.0	2	22.6	49.5	51.7	50	60
									E24	24.0	2	30.1	58.5	60.7	60	70
									E36	34.0	2	42.7	73.5	75.7	80	80
	575	5.4	33.0	7.5	0.6	4.1	1.8	0.0	None	-	-	-	17.5	19.3	20	20
									E09	9.0	1	9.0	28.3	30.1	30	35
									E18	18.0	2	18.1	39.1	40.9	40	45
									E24	24.0	2	24.1	46.3	48.1	50	50
									E36	34.0	2	34.1	58.3	60.1	60	70
102 (8.5)	208	16.7	120.0	26.0	1.5	10.9	5.5	0.0	None	-	-	-	51.5	57.0	60	70
									E09	6.8	1	18.9	75.1	80.6	80	90
									E18	13.5	2	37.5	98.3	103.8	100	110
									E24	18.0	2	50.0	113.9	119.4	125	125
									E36	25.5	2	70.8	140.0	145.5	150	150
	230	16.7	120.0	26.0	1.5	10.9	5.5	0.0	None	-	-	-	51.5	57.0	60	70
									E09	9.0	1	22.6	78.5	84.0	80	90
									E18	18.0	2	45.2	105.6	111.1	110	125
									E24	24.0	2	60.2	123.6	129.1	125	150
									E36	34.0	2	85.3	153.7	159.2	175	175
	460	8.7	60.0	13.5	0.8	5.3	2.2	0.0	None	-	-	-	26.5	28.7	35	35
									E09	9.0	1	11.3	40.0	42.2	45	45
									E18	18.0	2	22.6	53.5	55.7	60	60
									E24	24.0	2	30.1	62.6	64.8	70	70
									E36	34.0	2	42.7	77.6	79.8	80	80
	575	6.7	42.0	10.5	0.6	4.1	1.8	0.0	None	-	-	-	20.4	22.2	25	25
									E09	9.0	1	9.0	31.2	33.0	35	35
									E18	18.0	2	18.1	42.0	43.8	45	45
									E24	24.0	2	24.1	49.2	51.0	50	60
									E36	34.0	2	34.1	61.3	63.1	70	70

XP078-150 Hi Static Motor - Without Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	10.9	5.5	0.0	None	-	-	-	54.2	59.7	70	70
									E18	13.5	2	37.5	101.0	106.5	110	110
									E24	18.0	2	50.0	116.6	122.1	125	125
									E36	25.5	2	70.8	142.7	148.2	150	150
									E54	40.6	2	112.7	154.5	161.4	175	175
	230	17.9	120.0	28.0	1.5	10.9	5.5	0.0	None	-	-	-	54.2	59.7	70	70
									E18	18.0	2	45.2	108.3	113.8	110	125
									E24	24.0	2	60.2	126.3	131.8	150	150
									E36	34.0	2	85.3	156.4	161.9	175	175
									E54	54.0	2	135.6	156.4	161.9	175	175
	460	9.6	70.0	15.0	0.8	5.3	2.2	0.0	None	-	-	-	28.5	30.7	35	40
									E18	18.0	2	22.6	55.6	57.8	60	60
									E24	24.0	2	30.1	64.6	66.8	70	70
									E36	34.0	2	42.7	79.6	81.8	80	90
									E54	54.0	2	67.8	79.6	81.8	80	90
	575	7.4	53.0	11.5	0.6	4.1	1.8	0.0	None	-	-	-	22.0	23.8	25	30
									E18	18.0	2	18.1	43.6	45.4	45	50
									E24	24.0	2	24.1	50.8	52.6	60	60
									E36	34.0	2	34.1	62.8	64.6	70	70
									E54	54.0	2	54.2	62.8	64.6	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	16.1	5.5	0.0	None	-	-	-	74.1	79.6	90	100
									E18	13.5	2	37.5	120.9	126.4	125	150
									E24	18.0	2	50.0	136.5	142.0	150	150
									E36	25.5	2	70.8	162.6	168.1	175	175
									E54	40.6	2	112.7	162.6	168.1	175	175
	230	23.1	160.0	36.0	1.5	16.1	5.5	0.0	None	-	-	-	74.1	79.6	90	100
									E18	18.0	2	45.2	128.2	133.7	150	150
									E24	24.0	2	60.2	146.2	151.7	150	175
									E36	34.0	2	85.3	176.3	181.8	200	200
									E54	54.0	2	135.6	176.3	181.8	200	200
	460	12.2	87.0	19.0	0.8	8.1	2.2	0.0	None	-	-	-	38.8	41.0	50	50
									E18	18.0	2	22.6	65.8	68.0	70	70
									E24	24.0	2	30.1	74.8	77.0	80	80
									E36	34.0	2	42.7	89.9	92.1	90	100
									E54	54.0	2	67.8	89.9	92.1	90	100
	575	8.7	62.0	13.5	0.6	6.0	1.8	0.0	None	-	-	-	28.0	29.8	35	35
									E18	18.0	2	18.1	49.6	51.4	50	60
									E24	24.0	2	24.1	56.8	58.6	60	60
									E36	34.0	2	34.1	68.9	70.7	70	80
									E54	54.0	2	54.2	68.9	70.7	70	80

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

XP078-150 Standard Motor - With Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	6.2	5.5	10.0	None	–	–	–	50.9	56.4	60	70
									E09	6.8	1	18.9	74.5	80.0	80	80
									E18	13.5	2	37.5	97.8	103.3	100	110
									E24	18.0	2	50.0	113.4	118.9	125	125
									E36	25.5	2	70.8	139.4	144.9	150	150
	230	14.1	95.0	22.0	1.5	6.2	5.5	10.0	None	–	–	–	50.9	56.4	60	70
									E09	9.0	1	22.6	78.0	83.5	80	90
									E18	18.0	2	45.2	105.1	110.6	110	125
									E24	24.0	2	60.2	123.1	128.6	125	150
									E36	34.0	2	85.3	153.2	158.7	175	175
	460	6.4	45.0	10.0	0.8	3.1	2.2	5.0	None	–	–	–	24.1	26.3	30	30
									E09	9.0	1	11.3	37.6	39.8	40	40
									E18	18.0	2	22.6	51.2	53.4	60	60
									E24	24.0	2	30.1	60.2	62.4	70	70
									E36	34.0	2	42.7	75.2	77.4	80	80
	575	5.4	38.0	8.5	0.6	2.4	1.8	4.0	None	–	–	–	19.8	21.6	25	25
									E09	9.0	1	9.0	30.6	32.4	35	35
									E18	18.0	2	18.1	41.4	43.2	45	45
									E24	24.0	2	24.1	48.6	50.4	50	60
									E36	34.0	2	34.1	60.6	62.4	70	70
090 (7.5)	208	15.6	83.1	21.4	1.5	6.2	5.5	10.0	None	-	-	-	54.3	59.8	60	70
									E09	6.8	1	18.9	77.9	83.4	80	90
									E18	13.5	2	37.5	101.1	106.6	110	110
									E24	18.0	2	50.0	116.8	122.3	125	125
									E36	25.5	2	70.8	142.8	148.3	150	150
	230	15.6	83.1	21.4	1.5	6.2	5.5	10.0	None	-	-	-	54.3	59.8	60	70
									E09	9.0	1	22.6	81.4	86.9	90	90
									E18	18.0	2	45.2	108.4	113.9	110	125
									E24	24.0	2	60.2	126.5	132.0	150	150
									E36	34.0	2	85.3	156.5	162.0	175	175
	460	6.9	41.0	9.7	0.8	3.1	2.2	5.0	None	-	-	-	25.2	27.4	30	30
									E09	9.0	1	11.3	38.8	41.0	40	45
									E18	18.0	2	22.6	52.3	54.5	60	60
									E24	24.0	2	30.1	61.3	63.5	70	70
									E36	34.0	2	42.7	76.3	78.5	80	80
	575	5.4	33.0	7.5	0.6	2.4	1.8	4.0	None	-	-	-	19.8	21.6	25	25
									E09	9.0	1	9.0	30.6	32.4	35	35
									E18	18.0	2	18.1	41.4	43.2	45	45
									E24	24.0	2	24.1	48.6	50.4	50	60
									E36	34.0	2	34.1	60.6	62.4	70	70
102 (8.5)	208	16.7	120.0	26.0	1.5	8.2	5.5	10.0	None	–	–	–	58.8	64.3	70	80
									E09	6.8	1	18.9	82.4	87.9	90	90
									E18	13.5	2	37.5	105.6	111.1	110	125
									E24	18.0	2	50.0	121.2	126.7	125	150
									E36	25.5	2	70.8	147.3	152.8	150	175
	230	16.7	120.0	26.0	1.5	8.2	5.5	10.0	None	–	–	–	58.8	64.3	70	80
									E09	9.0	1	22.6	85.8	91.3	90	100
									E18	18.0	2	45.2	112.9	118.4	125	125
									E24	24.0	2	60.2	130.9	136.4	150	150
									E36	34.0	2	85.3	161.0	166.5	175	175
	460	8.7	60.0	13.5	0.8	4.1	2.2	5.0	None	–	–	–	30.3	32.5	35	40
									E09	9.0	1	11.3	43.8	46.0	45	50
									E18	18.0	2	22.6	57.3	59.5	60	60
									E24	24.0	2	30.1	66.4	68.6	70	70
									E36	34.0	2	42.7	81.4	83.6	90	90
	575	6.7	42.0	10.5	0.6	3.6	1.8	4.0	None	–	–	–	23.9	25.7	30	30
									E09	9.0	1	9.0	34.7	36.5	35	40
									E18	18.0	2	18.1	45.5	47.3	50	50
									E24	24.0	2	24.1	52.7	54.5	60	60
									E36	34.0	2	34.1	64.8	66.6	70	70

XP078-150 Standard Motor - With Powered Convenience Outlet (Continued)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	8.2	5.5	10.0	None	–	–	–	61.5	67.0	70	80
									E18	13.5	2	37.5	108.3	113.8	110	125
									E24	18.0	2	50.0	123.9	129.4	125	150
									E36	25.5	2	70.8	150.0	155.5	150	175
									E54	40.6	2	112.7	163.6	170.5	175	175
	230	17.9	120.0	28.0	1.5	8.2	5.5	10.0	None	–	–	–	61.5	67.0	70	80
									E18	18.0	2	45.2	115.6	121.1	125	125
									E24	24.0	2	60.2	133.6	139.1	150	150
									E36	34.0	2	85.3	163.7	169.2	175	175
									E54	54.0	2	135.6	163.7	169.2	175	175
	460	9.6	70.0	15.0	0.8	4.1	2.2	5.0	None	–	–	–	32.3	34.5	40	40
									E18	18.0	2	22.6	59.4	61.6	60	70
									E24	24.0	2	30.1	68.4	70.6	70	80
									E36	34.0	2	42.7	83.4	85.6	90	90
									E54	54.0	2	67.8	83.4	85.6	90	90
	575	7.4	53.0	11.5	0.6	3.6	1.8	4.0	None	–	–	–	25.5	27.3	30	30
									E18	18.0	2	18.1	47.1	48.9	50	50
									E24	24.0	2	24.1	54.3	56.1	60	60
									E36	34.0	2	34.1	66.3	68.1	70	70
									E54	54.0	2	54.2	66.3	68.1	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	10.9	5.5	10.0	None	–	–	–	78.9	84.4	100	100
									E18	13.5	2	37.5	125.7	131.2	150	150
									E24	18.0	2	50.0	141.3	146.8	150	150
									E36	25.5	2	70.8	167.4	172.9	175	175
									E54	40.6	2	112.7	167.4	173.9	175	175
	230	23.1	160.0	36.0	1.5	10.9	5.5	10.0	None	–	–	–	78.9	84.4	100	100
									E18	18.0	2	45.2	133.0	138.5	150	150
									E24	24.0	2	60.2	151.0	156.5	175	175
									E36	34.0	2	85.3	181.1	186.6	200	200
									E54	54.0	2	135.6	181.1	186.6	200	200
	460	12.2	87.0	19.0	0.8	5.3	2.2	5.0	None	–	–	–	41.0	43.2	50	50
									E18	18.0	2	22.6	68.0	70.2	70	80
									E24	24.0	2	30.1	77.0	79.2	80	80
									E36	34.0	2	42.7	92.1	94.3	100	100
									E54	54.0	2	67.8	92.1	94.3	100	100
	575	8.7	62.0	13.5	0.6	4.1	1.8	4.0	None	–	–	–	30.1	31.9	35	40
									E18	18.0	2	18.1	51.7	53.5	60	60
									E24	24.0	2	24.1	58.9	60.7	60	70
									E36	34.0	2	34.1	71.0	72.8	80	80
									E54	54.0	2	54.2	71.0	72.8	80	80

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

XP078-150 Hi Static Motor - With Powered Convenience Outlet

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
078 (6.5)	208	14.1	95.0	22.0	1.5	8.2	5.5	10.0	None	–	–	–	52.9	58.4	60	70
									E09	6.8	1	18.9	76.5	82.0	80	90
									E18	13.5	2	37.5	99.8	105.3	100	110
									E24	18.0	2	50.0	115.4	120.9	125	125
									E36	25.5	2	70.8	141.4	146.9	150	150
	230	14.1	95.0	22.0	1.5	8.2	5.5	10.0	None	–	–	–	52.9	58.4	60	70
									E09	9.0	1	22.6	80.0	85.5	80	90
									E18	18.0	2	45.2	107.1	112.6	110	125
									E24	24.0	2	60.2	125.1	130.6	150	150
									E36	34.0	2	85.3	155.2	160.7	175	175
	460	6.4	45.0	10.0	0.8	4.1	2.2	5.0	None	–	–	–	25.1	27.3	30	30
									E09	9.0	1	11.3	38.6	40.8	40	45
									E18	18.0	2	22.6	52.2	54.4	60	60
									E24	24.0	2	30.1	61.2	63.4	70	70
									E36	34.0	2	42.7	76.2	78.4	80	80
	575	5.4	38.0	8.5	0.6	3.6	1.8	4.0	None	–	–	–	21.0	22.8	25	25
									E09	9.0	1	9.0	31.8	33.6	35	35
									E18	18.0	2	18.1	42.6	44.4	45	45
									E24	24.0	2	24.1	49.8	51.6	50	60
									E36	34.0	2	34.1	61.8	63.6	70	70
090 (7.5)	208	15.6	83.1	21.4	1.5	10.9	5.5	10.0	None	–	–	–	59.0	64.5	70	80
									E09	6.8	1	18.9	82.6	88.1	90	90
									E18	13.5	2	37.5	105.8	111.3	110	125
									E24	18.0	2	50.0	121.5	127.0	125	150
									E36	25.5	2	70.8	147.5	153.0	150	175
	230	15.6	83.1	21.4	1.5	10.9	5.5	10.0	None	–	–	–	59.0	64.5	70	80
									E09	9.0	1	22.6	86.1	91.6	90	100
									E18	18.0	2	45.2	113.1	118.6	125	125
									E24	24.0	2	60.2	131.2	136.7	150	150
									E36	34.0	2	85.3	161.2	166.7	175	175
	460	6.9	41.0	9.7	0.8	5.3	2.2	5.0	None	–	–	–	27.4	29.6	30	35
									E09	9.0	1	11.3	41.0	43.2	45	45
									E18	18.0	2	22.6	54.5	56.7	60	60
									E24	24.0	2	30.1	63.5	65.7	70	70
									E36	34.0	2	42.7	78.5	80.7	80	90
	575	5.4	33.0	7.5	0.6	4.1	1.8	4.0	None	–	–	–	21.5	23.3	25	25
									E09	9.0	1	9.0	32.3	34.1	35	35
									E18	18.0	2	18.1	43.1	44.9	45	45
									E24	24.0	2	24.1	50.3	52.1	60	60
									E36	34.0	2	34.1	62.3	64.1	70	70
102 (8.5)	208	16.7	120.0	26.0	1.5	10.9	5.5	10.0	None	–	–	–	61.5	67.0	70	80
									E09	6.8	1	18.9	85.1	90.6	90	100
									E18	13.5	2	37.5	108.3	113.8	110	125
									E24	18.0	2	50.0	123.9	129.4	125	150
									E36	25.5	2	70.8	150.0	155.5	150	175
	230	16.7	120.0	26.0	1.5	10.9	5.5	10.0	None	–	–	–	61.5	67.0	70	80
									E09	9.0	1	22.6	88.5	94.0	90	100
									E18	18.0	2	45.2	115.6	121.1	125	125
									E24	24.0	2	60.2	133.6	139.1	150	150
									E36	34.0	2	85.3	163.7	169.2	175	175
	460	8.7	60.0	13.5	0.8	5.3	2.2	5.0	None	–	–	–	31.5	33.7	40	40
									E09	9.0	1	11.3	45.0	47.2	50	50
									E18	18.0	2	22.6	58.5	60.7	60	70
									E24	24.0	2	30.1	67.6	69.8	70	70
									E36	34.0	2	42.7	82.6	84.8	90	90
	575	6.7	42.0	10.5	0.6	4.1	1.8	4.0	None	–	–	–	24.4	26.2	30	30
									E09	9.0	1	9.0	35.2	37.0	40	40
									E18	18.0	2	18.1	46.0	47.8	50	50
									E24	24.0	2	24.1	53.2	55.0	60	60
									E36	34.0	2	34.1	65.3	67.1	70	70

XP078-150 Hi Static Motor - With Powered Convenience Outlet (Continued)

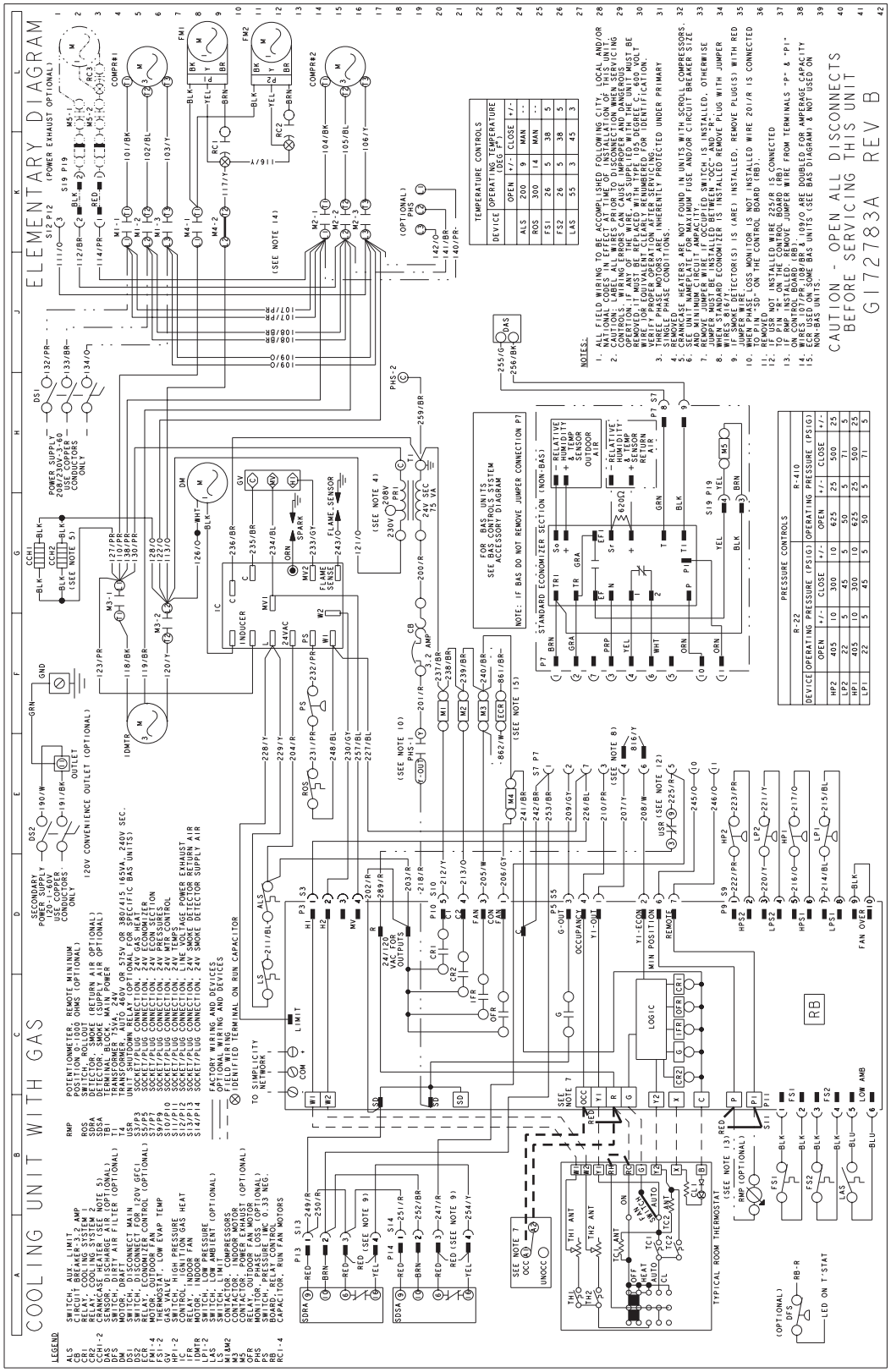
Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Exh Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	MCA[1] w/Pwr Exh (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)	Max Fuse[2]/ Breaker[3] Size w/ Pwr Exh (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	FLA	Model	kW	Stages	Amps				
120 (10)	208	17.9	120.0	28.0	1.5	10.9	5.5	10.0	None	–	–	–	64.2	69.7	80	80
									E18	13.5	2	37.5	111.0	116.5	125	125
									E24	18.0	2	50.0	126.6	132.1	150	150
									E36	25.5	2	70.8	152.7	158.2	175	175
									E54	40.6	2	112.7	167.0	173.9	175	175
	230	17.9	120.0	28.0	1.5	10.9	5.5	10.0	None	–	–	–	64.2	69.7	80	80
									E18	18.0	2	45.2	118.3	123.8	125	125
									E24	24.0	2	60.2	136.3	141.8	150	150
									E36	34.0	2	85.3	166.4	171.9	175	175
									E54	54.0	2	135.6	166.4	171.9	175	175
	460	9.6	70.0	15.0	0.8	5.3	2.2	5.0	None	–	–	–	33.5	35.7	40	45
									E18	18.0	2	22.6	60.6	62.8	70	70
									E24	24.0	2	30.1	69.6	71.8	70	80
									E36	34.0	2	42.7	84.6	86.8	90	90
									E54	54.0	2	67.8	84.6	86.8	90	90
	575	7.4	53.0	11.5	0.6	4.1	1.8	4.0	None	–	–	–	26.0	27.8	30	35
									E18	18.0	2	18.1	47.6	49.4	50	50
									E24	24.0	2	24.1	54.8	56.6	60	60
									E36	34.0	2	34.1	66.8	68.6	70	70
									E54	54.0	2	54.2	66.8	68.6	70	70
150 (12.5)	208	23.1	160.0	36.0	1.5	16.1	5.5	10.0	None	–	–	–	84.1	89.6	100	110
									E18	13.5	2	37.5	130.9	136.4	150	150
									E24	18.0	2	50.0	146.5	152.0	150	175
									E36	25.5	2	70.8	172.6	178.1	175	200
									E54	40.6	2	112.7	173.5	180.4	175	200
	230	23.1	160.0	36.0	1.5	16.1	5.5	10.0	None	–	–	–	84.1	89.6	100	110
									E18	18.0	2	45.2	138.2	143.7	150	150
									E24	24.0	2	60.2	156.2	161.7	175	175
									E36	34.0	2	85.3	186.3	191.8	200	200
									E54	54.0	2	135.6	186.3	191.8	200	200
	460	12.2	87.0	19.0	0.8	8.1	2.2	5.0	None	–	–	–	43.8	46.0	50	50
									E18	18.0	2	22.6	70.8	73.0	80	80
									E24	24.0	2	30.1	79.8	82.0	80	90
									E36	34.0	2	42.7	94.9	97.1	100	100
									E54	54.0	2	67.8	94.9	97.1	100	100
	575	8.7	62.0	13.5	0.6	6.0	1.8	4.0	None	–	–	–	32.0	33.8	40	40
									E18	18.0	2	18.1	53.6	55.4	60	60
									E24	24.0	2	24.1	60.8	62.6	70	70
									E36	34.0	2	34.1	72.9	74.7	80	80
									E54	54.0	2	54.2	72.9	74.7	80	80

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

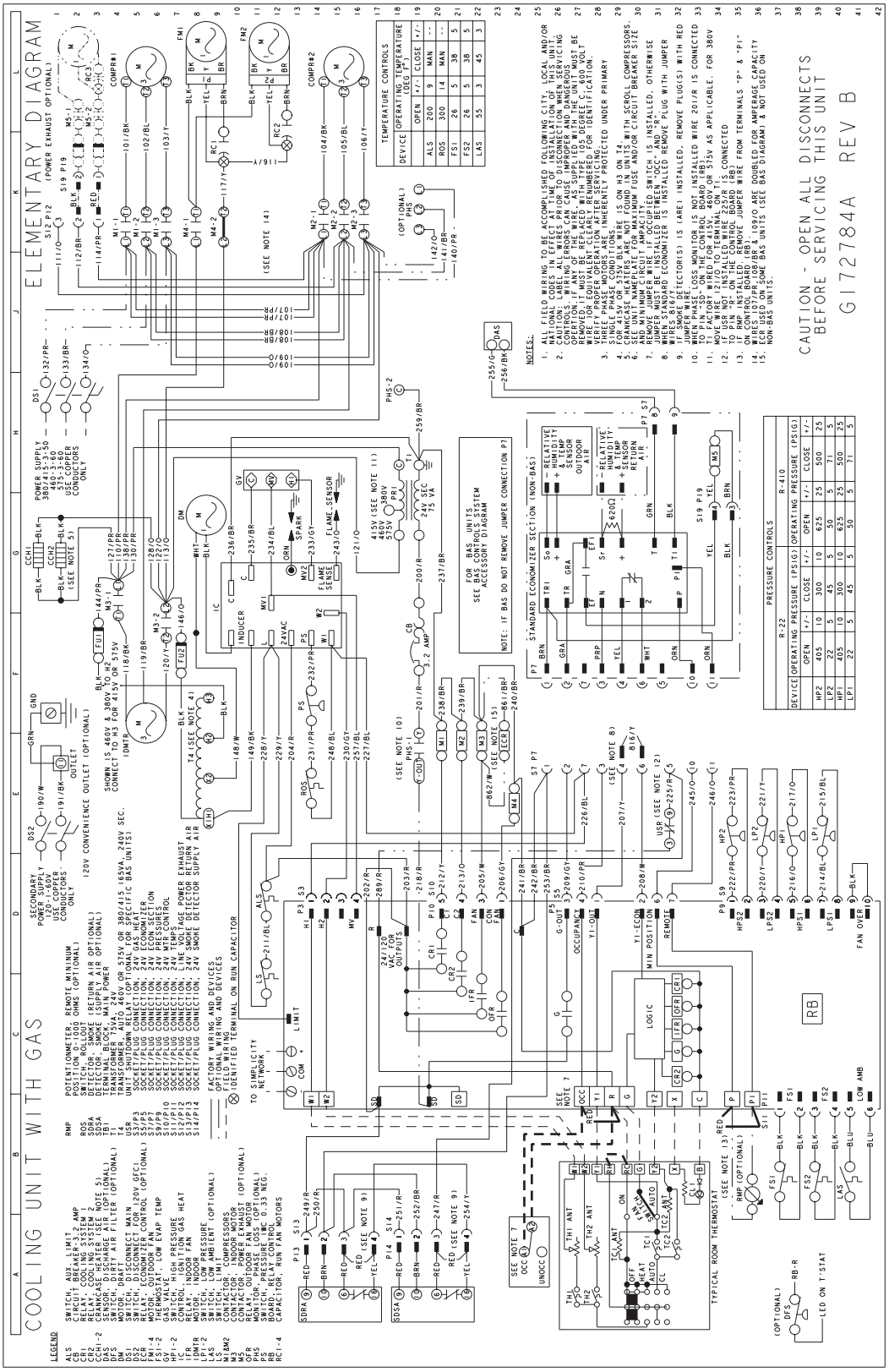
Typical Wiring Diagrams

ZH/ZR078-150 Typical Wiring Diagrams

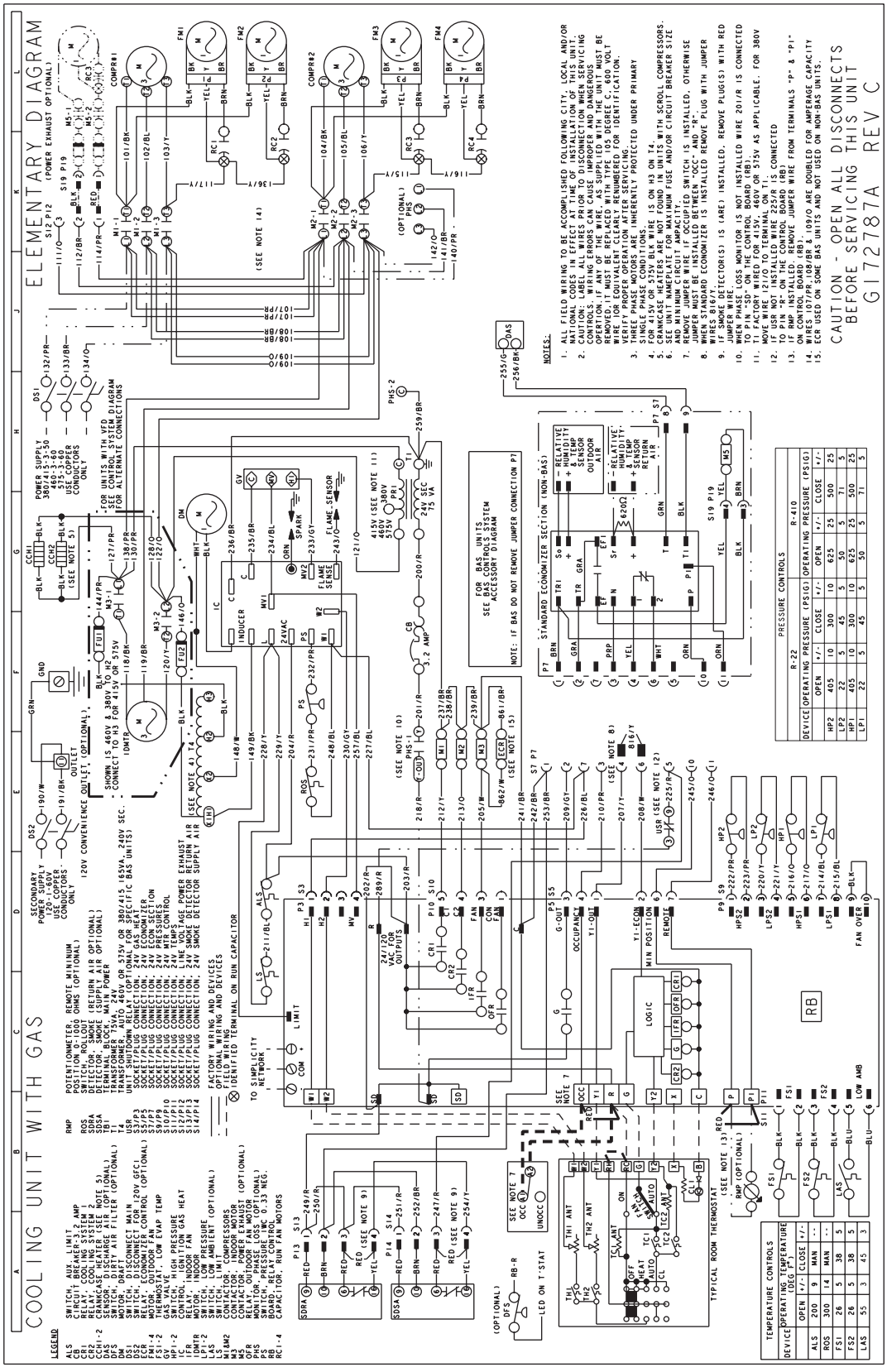
Typical ZH/ZR078-120 Cooling Unit with Gas Heat 230 Volt Wiring Diagram



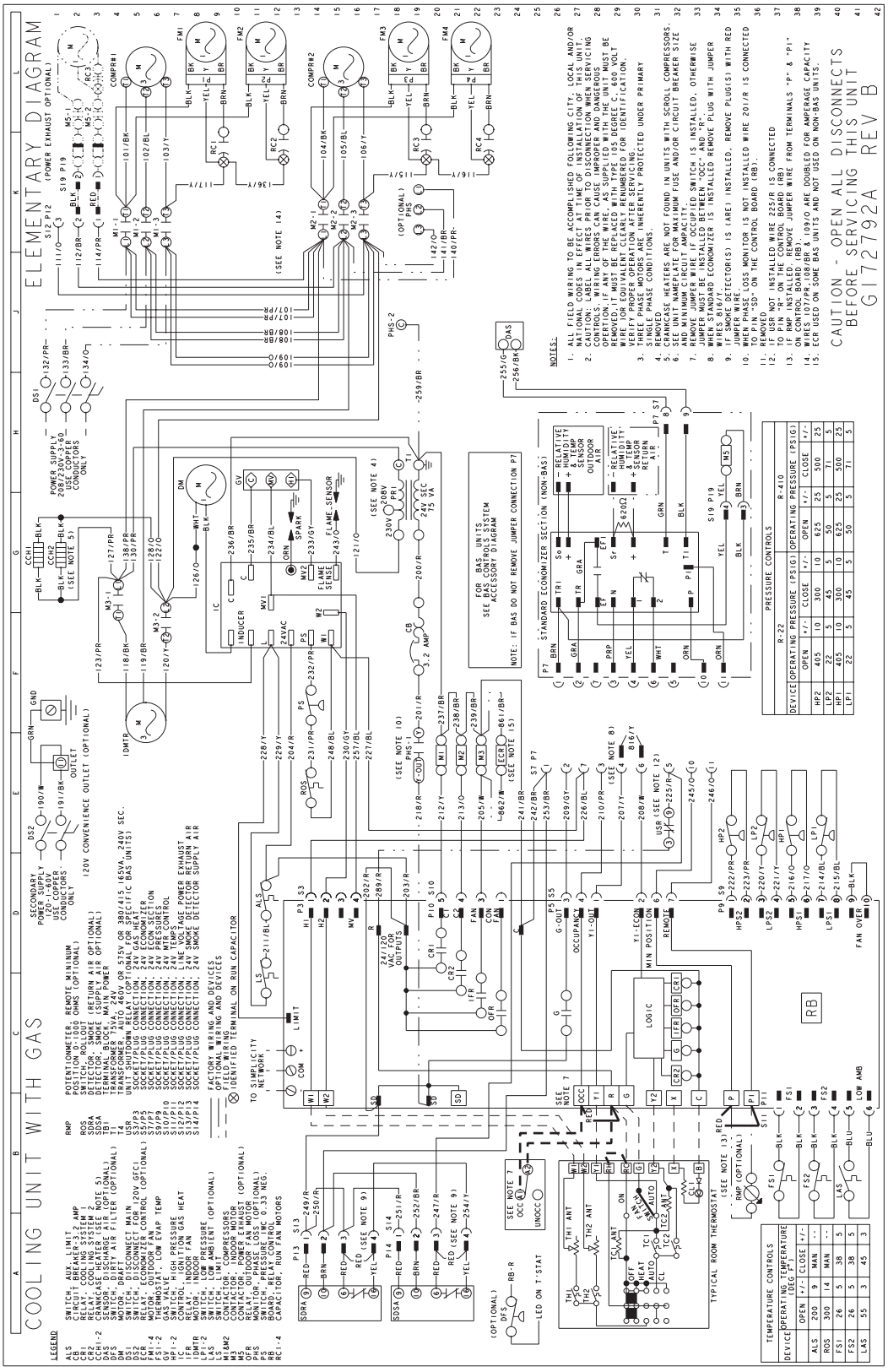
Typical ZH/ZR078-120 Cooling Unit with Gas Heat 460/575 Volt Wiring Diagram



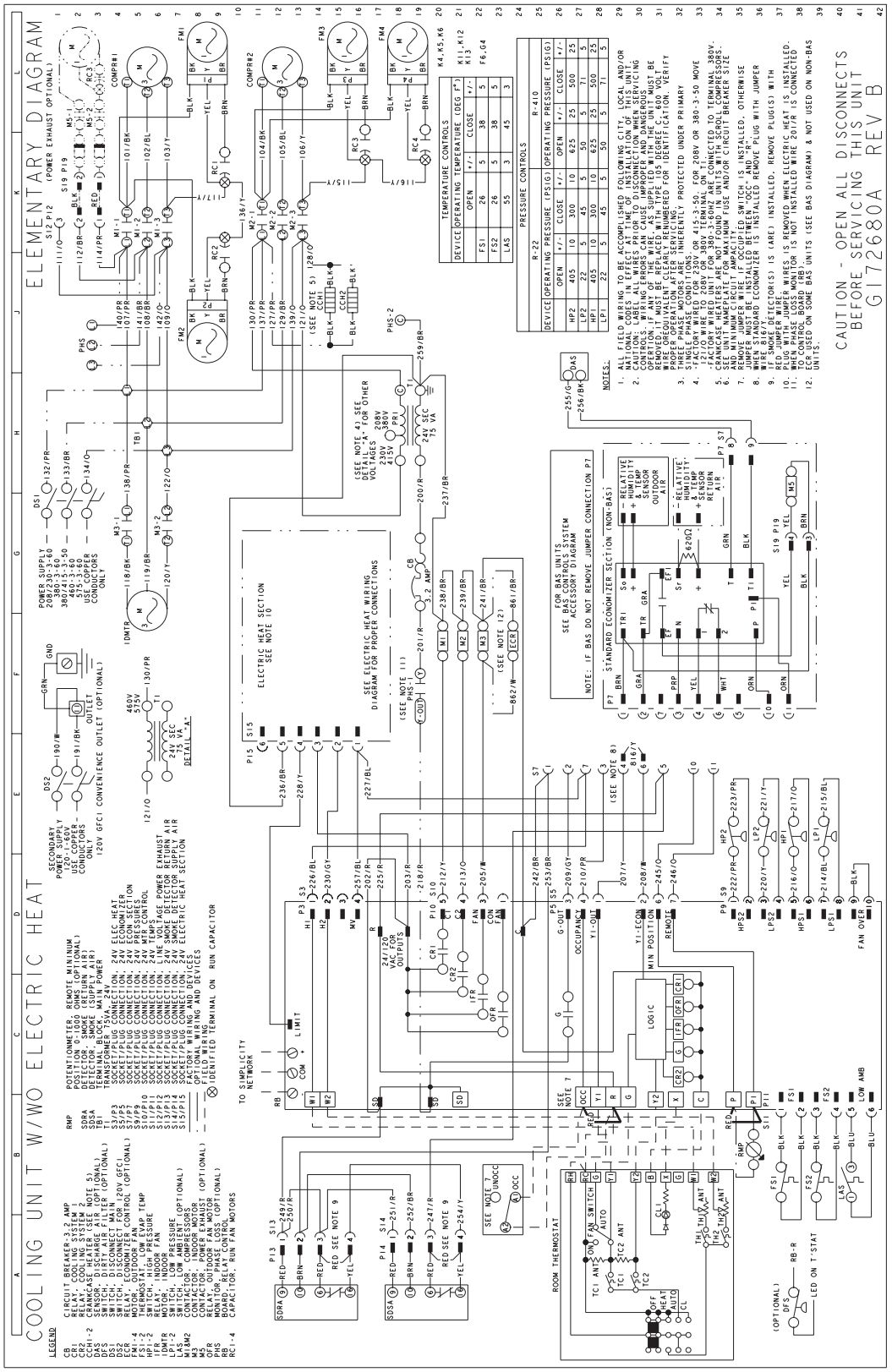
Typical ZH/ZR078-120 Cooling Unit with/without Electric Heat Wiring Diagram


COOLING UNIT WITH GAS
ELEMENTARY DIAGRAM
CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT
G172787A REV C
NOTES:
1. ALL FIELD WIRING TO BE ACCOMPLISHED FOLLOWING CITY, LOCAL AND/OR NATIONAL CODES IN EFFECT AT TIME OF INSTALLATION OF THIS UNIT.
2. CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. IF ANY OF THE WIRE, AS SUPPLIED WITH THE UNIT MUST BE REMOVED, IT MUST BE REPLACED WITH TYPE 105 DEGREE C, 600 VOLT WIRE, OR EQUIVALENT CLEARLY MARKED FOR IDENTIFICATION.
3. THREE PHASE MOTORS ARE INHERENTLY PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
4. FOR 415V OR 575V BLK WIRE IS ON H3 ON T4.
5. CRANKCASE HEATERS ARE REQUIRED ON ALL THREE PHASE SCROLL COMPRESSORS.
6. SEE UNIT NAMEPLATE FOR MAXIMUM FUSE AND/OR CIRCUIT BREAKER SIZE AND MINIMUM CIRCUIT AMPACITY.
7. REMOVE JUMPER WIRE IF OCCUPIED SWITCH IS INSTALLED. OTHERWISE FOR PROPER OPERATION, ALL WIRES MUST BE CONNECTED AS SHOWN.
8. WHEN STANDARD ECONOMIZER IS INSTALLED REMOVE PLUG WITH JUMPER WIRES 816/Y.
9. IF SMOKE DETECTOR(S) IS (ARE) INSTALLED, REMOVE PLUG(S) WITH RED JUMPER WIRE.
10. WHEN PHASE LOSS MONITOR IS NOT INSTALLED WIRE 201/R IS CONNECTED TO PIN "SD" ON THE CONTROL BOARD (RB).
11. FACTORY WIRED FOR 415V, 460V OR 575V AS APPLICABLE. FOR 380V WIRE FROM T1 TRANSFORMER TO H2.
12. IF USR NOT INSTALLED WIRE 225/R IS CONNECTED TO PIN "R" ON THE CONTROL BOARD (RB)
13. IF RMP INSTALLED, REMOVE JUMPER WIRE FROM TERMINALS "P" & "P1"
14. WIRES 107/PR,108/BR & 109/O ARE DOUBLED FOR AMPERAGE CAPACITY
15. ECR USED ON SOME BAS UNITS AND NOT USED ON NON-BAS UNITS.
LEGEND
TYPICAL ROOM THERMOSTAT (SEE NOTE 13)
TEMPERATURE CONTROLS
R-22 PRESSURE CONTROLS
R-410 PRESSURE CONTROLS
STANDARD ECONOMIZER SECTION (NON-BAS)
FOR BAS UNITS SEE BAS CONTROL SYSTEM ACCESSORY DIAGRAM
NOTE: IF BAS DO NOT REMOVE JUMPER CONNECTION P7
TO SIMPLICITY NETWORK
FACTORY WIRING AND DEVICES
FIELD WIRING
IDENTIFIED TERMINAL ON RUN CAPACITOR
SECONDARY POWER SUPPLY 120 VOLT USE COPPER CONDUCTORS ONLY
120V CONVENIENCE OUTLET (OPTIONAL)
POWER SUPPLY 380/415/460/ 575V-3PH-60 USE COPPER CONDUCTORS ONLY
(POWER EXHAUST OPTIONAL)
(SEE NOTE 14)
(OPTIONAL) DFS
LED ON T-STAT
RB-R
LOW AMB
FAN OUTPUT

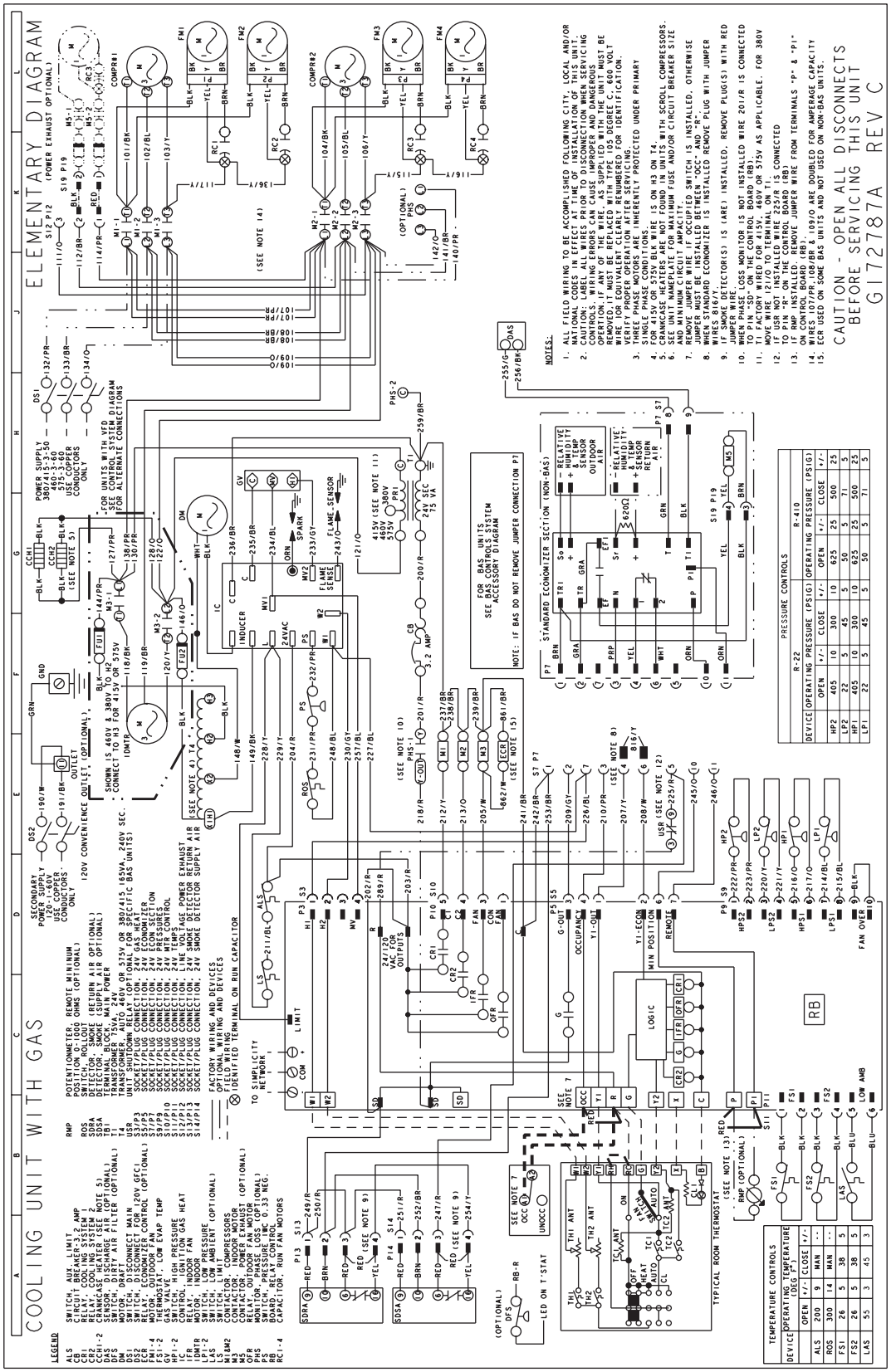
Typical ZH/ZR150 Cooling Unit with Gas Heat 230 Volt Wiring Diagram


ELEMENTARY DIAGRAM
COOLING UNIT WITH GAS
CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT
G172792A REV B
NOTES:
1. ALL FIELD WIRING TO BE ACCOMPLISHED FOLLOWING CITY, LOCAL AND/OR NATIONAL CODES IN EFFECT AT TIME OF INSTALLATION OF THIS UNIT.
2. CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.
3. WHEN REPLACEMENT WIRE IS SUPPLIED WITH THE UNIT IT MUST BE REMOVED, IT MUST BE REPLACED WITH TYPE 105 DEGREE C, 600 VOLT WIRE (OR EQUIVALENT CLEARLY RENUMBERED FOR IDENTIFICATION. VERIFY PROPER OPERATION AFTER SERVICING.
4. REMOVED
5. CRANKCASE HEATERS ARE NOT FOUND IN UNITS WITH SCROLL COMPRESSORS.
6. REFER TO UNIT NAMEPLATE FOR MAXIMUM FUSE AND/OR CIRCUIT BREAKER SIZE AND MINIMUM CIRCUIT AMPACITY.
7. REMOVE JUMPER WIRE IF OCCUPIED SWITCH IS INSTALLED, OTHERWISE JUMPER MUST BE INSTALLED BETWEEN OCC AND C.
8. JUMPER MUST BE INSTALLED BETWEEN TB1-1 AND TB1-2 WHEN STANDARD ECONOMIZER IS INSTALLED REMOVE PLUG WITH JUMPER WIRES 816/Y.
9. IF SMOKE DETECTOR(S) IS (ARE) INSTALLED, REMOVE PLUG(S) WITH RED JUMPER WIRE.
10. WHEN PHASE LOSS MONITOR IS NOT INSTALLED WIRE 201/R IS CONNECTED TO PIN "SD" ON THE CONTROL BOARD (RB).
11. REMOVED
12. REMOVED NOT INSTALLED WIRE 225/R IS CONNECTED TO PIN "R" ON THE CONTROL BOARD (RB).
13. IF RMP INSTALLED, REMOVE JUMPER WIRE FROM TERMINALS "P" & "P1" ON CONTROL BOARD (RB).
14. ECR USED ON 208/230 VOLT, 1Ø/3Ø ARE DOUBLED FOR AMPERAGE CAPACITY
15. ECR USED ON SOME BAS UNITS AND NOT USED ON NON-BAS UNITS.
LEGEND
ALS AUX. LIMIT
CB CIRCUIT BREAKER/AMP
CR1 RELAY, COOLING SYSTEM
CR2 RELAY, GAS HEAT (NOTE 5)
DAS1-2 SENSOR, DISCHARGE AIR (OPTIONAL)
DFS SWITCH, DIRTY AIR FILTER (OPTIONAL)
DM MOTOR, DRAFT
DS1 SWITCH, DISCONNECT MAIN
DS2 SWITCH, DISCONNECT FOR 120V GFCI
ECR1-4 RELAY, ECONOMIZER CONTROL (OPTIONAL)
FM1-4 MOTOR, OUTDOOR FAN
GV GAS VALVE
HP1-2 THERMOSTAT, LOW EVAP TEMP
IC IGNITION CONTROL
IDM MOTOR, INDUCER
IFR RELAY, INDOOR FAN
IFM MOTOR, INDOOR FAN
LAS SWITCH, LOW AMBIENT (OPTIONAL)
LPS1-2 SWITCH, LOW PRESSURE
LS SWITCH, LIMIT
MV1-2 VALVE, GAS HEAT
M1-3 CONTACTOR, COMPRESSORS
M3 CONTACTOR, INDOOR MOTOR
OFR RELAY, OUTDOOR FAN
PHS MONITOR, PHASE LOSS (OPTIONAL)
PS SWITCH, PRESSURE
RB BOARD, RELAY CONTROL
RC1-4 CAPACITOR, RUN FAN MOTORS
RMP POTENTIOMETER, REMOTE MINIMUM POSITION POTENTIOMETER (OPTIONAL)
ROS SWITCH, LOW COOL 1000 OHMS (OPTIONAL)
SDSA DETECTOR, SMOKE (RETURN AIR OPTIONAL)
SDRA DETECTOR, SMOKE (RETURN AIR OPTIONAL)
TB1 TERMINAL BLOCK, MAIN POWER
T1 TRANSFORMER 75VA, 240V
UNIT SHUTDOWN RELAY (OPTIONAL FOR SPECIFIC BAS UNITS)
USR SOCKET/PLUG CONNECTION, 24V GAS HEAT
S3/P3 SOCKET/PLUG CONNECTION, 24V ECON SECTION
S5/P5 SOCKET/PLUG CONNECTION, 24V ECON SECTION
S7/P7 SOCKET/PLUG CONNECTION, 24V MTR SCONTROL
S9/P9 SOCKET/PLUG CONNECTION, 24V TEMPS
S10/P10 SOCKET/PLUG CONNECTION, 24V VOLTAGE POWER EXHAUST
S11/P11 SOCKET/PLUG CONNECTION, 24V SMOKE DETECTOR RETURN AIR
S13/P13 SOCKET/PLUG CONNECTION, 24V SMOKE DETECTOR SUPPLY AIR
S14/P14 SOCKET/PLUG CONNECTION, 24V SMOKE DETECTOR SUPPLY AIR
FACTORY WIRING AND DEVICES
OPTIONAL WIRING AND DEVICES
FIELD WIRING
IDENTIFIED TERMINAL ON RUN CAPACITOR
TO SIMPLICITY
SECONDARY POWER SUPPLY 208/230 VOLT USE COPPER CONDUCTORS ONLY
120V CONVENIENCE OUTLET (OPTIONAL)
POWER SUPPLY 208/230 VOLT USE COPPER CONDUCTORS ONLY
(POWER EXHAUST OPTIONAL)
(SEE NOTE 14)
(SEE NOTE 4)
(SEE NOTE 10)
(SEE NOTE 5)
FOR BAS UNITS SEE BAS CONTROLS ACCESSORY DIAGRAM
NOTE: IF BAS DO NOT REMOVE JUMPER CONNECTION P7
STANDARD ECONOMIZER SECTION (NON-BAS)
RELATIVE HUMIDITY & TEMP SENSOR OUTDOOR AIR
RELATIVE HUMIDITY & TEMP SENSOR RETURN AIR
PRESSURE CONTROLS
DEVICE | R-22 OPERATING PRESSURE (PSIG) OPEN | +/- | CLOSE | +/- | R-410A OPERATING PRESSURE (PSIG) OPEN | +/- | CLOSE | +/-
HP2 405 10 300 10 625 25 500 25
LP2 22 5 45 5 50 5 71 5
HP1 405 10 300 10 625 25 500 25
LP1 22 5 45 5 50 5 71 5
TEMPERATURE CONTROLS
DEVICE | OPERATING TEMPERATURE (DEG F) OPEN | +/- | CLOSE | +/-
ALS 200 9 MAN --
ROS 300 14 MAN --
FS1 26 5 38 5
FS2 26 5 38 5
LAS 55 3 45 3
TYPICAL ROOM THERMOSTAT
LED ON T'STAT
(OPTIONAL)
RMP (OPTIONAL)
SEE NOTE 7
SEE NOTE 3
SEE NOTE 9
SEE NOTE 12
SEE NOTE 8
SEE NOTE 5
SEE NOTE 7
LOGIC
RB
FAN OVER
LOW AMB

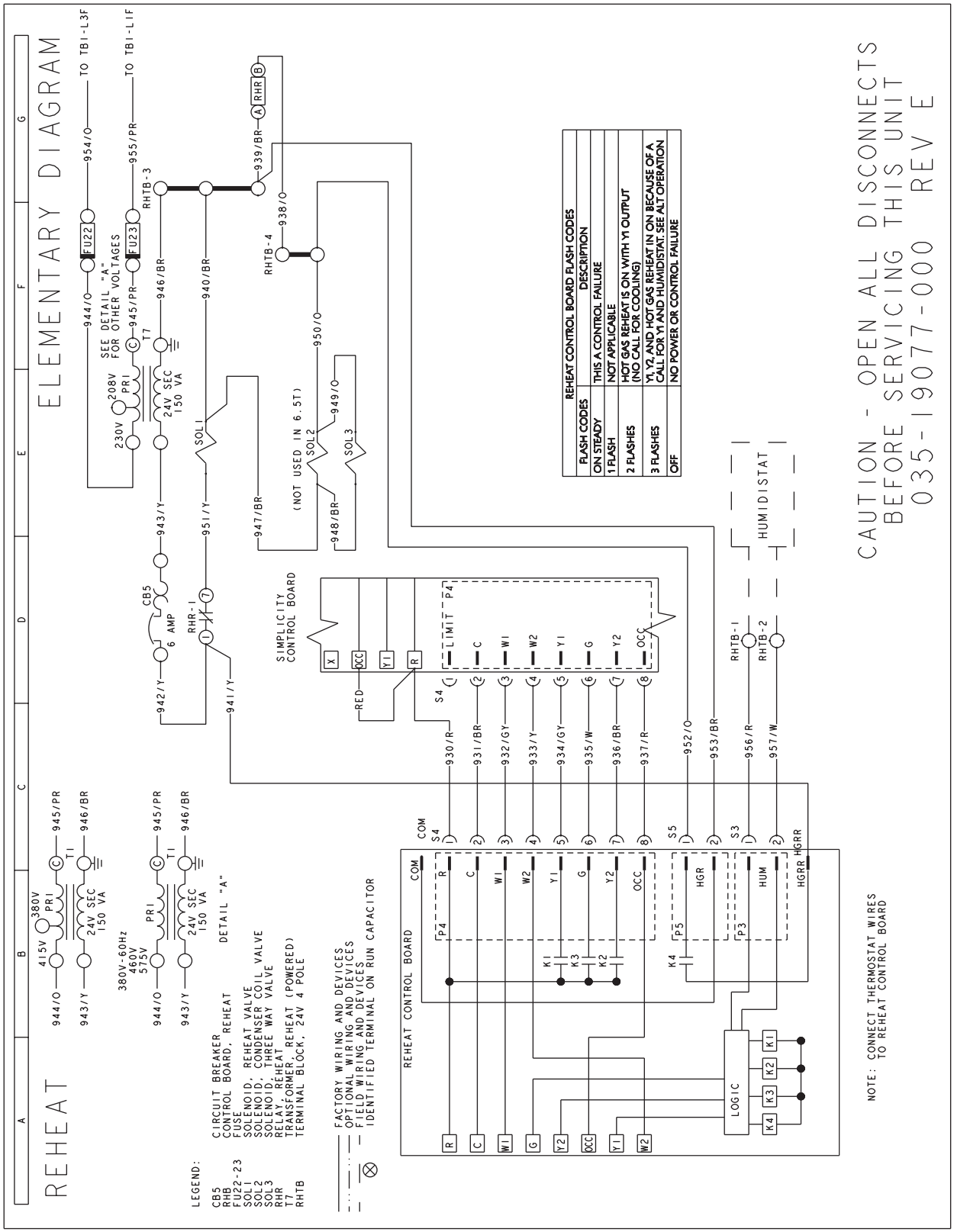
Typical ZH/ZR150 Cooling Unit with Gas Heat 460/575 Volt Wiring Diagram



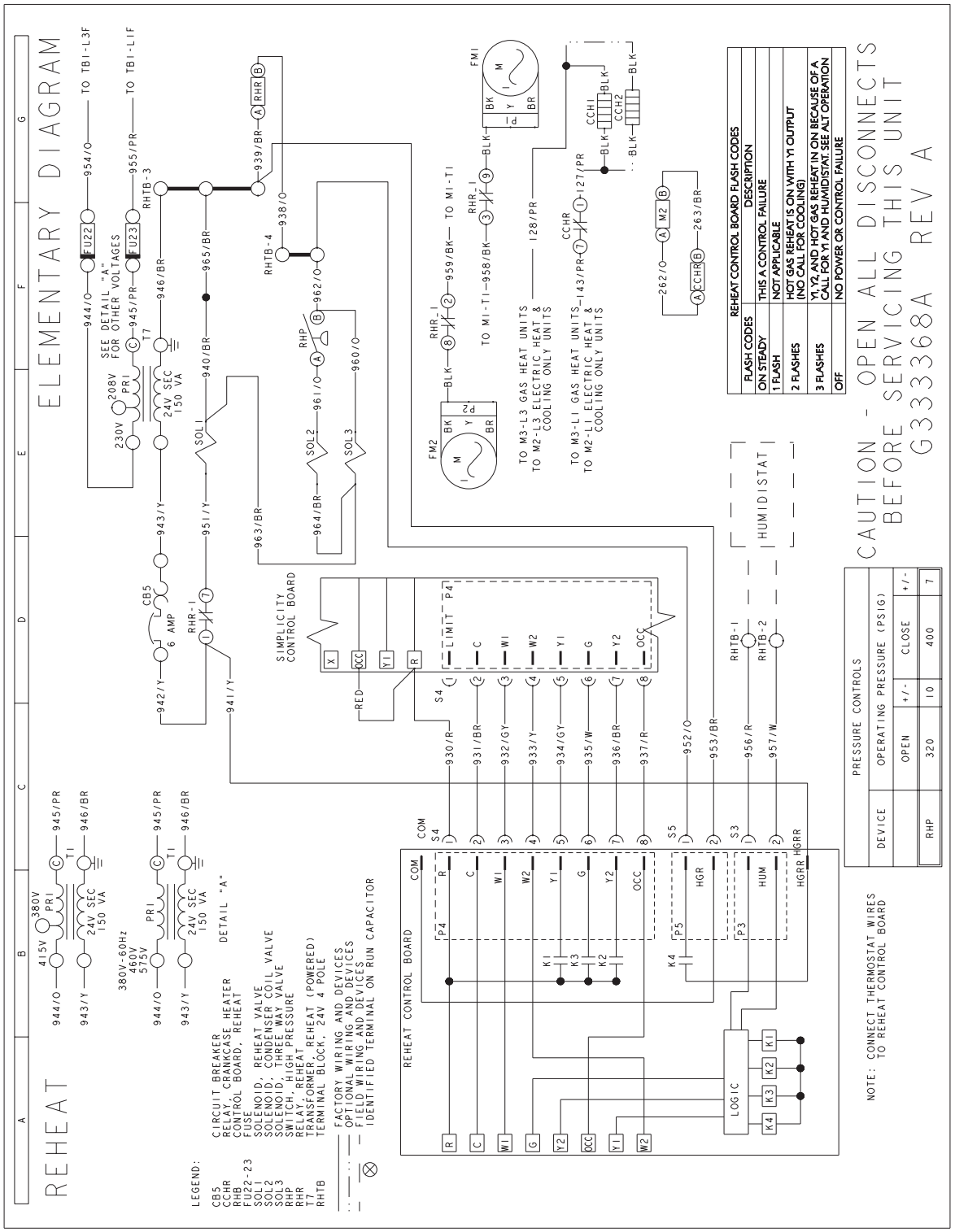
Typical ZH/ZR150 Cooling Unit with/without Electric Heat Wiring Diagram



Typical ZR078-120 Reheat Wiring Diagram

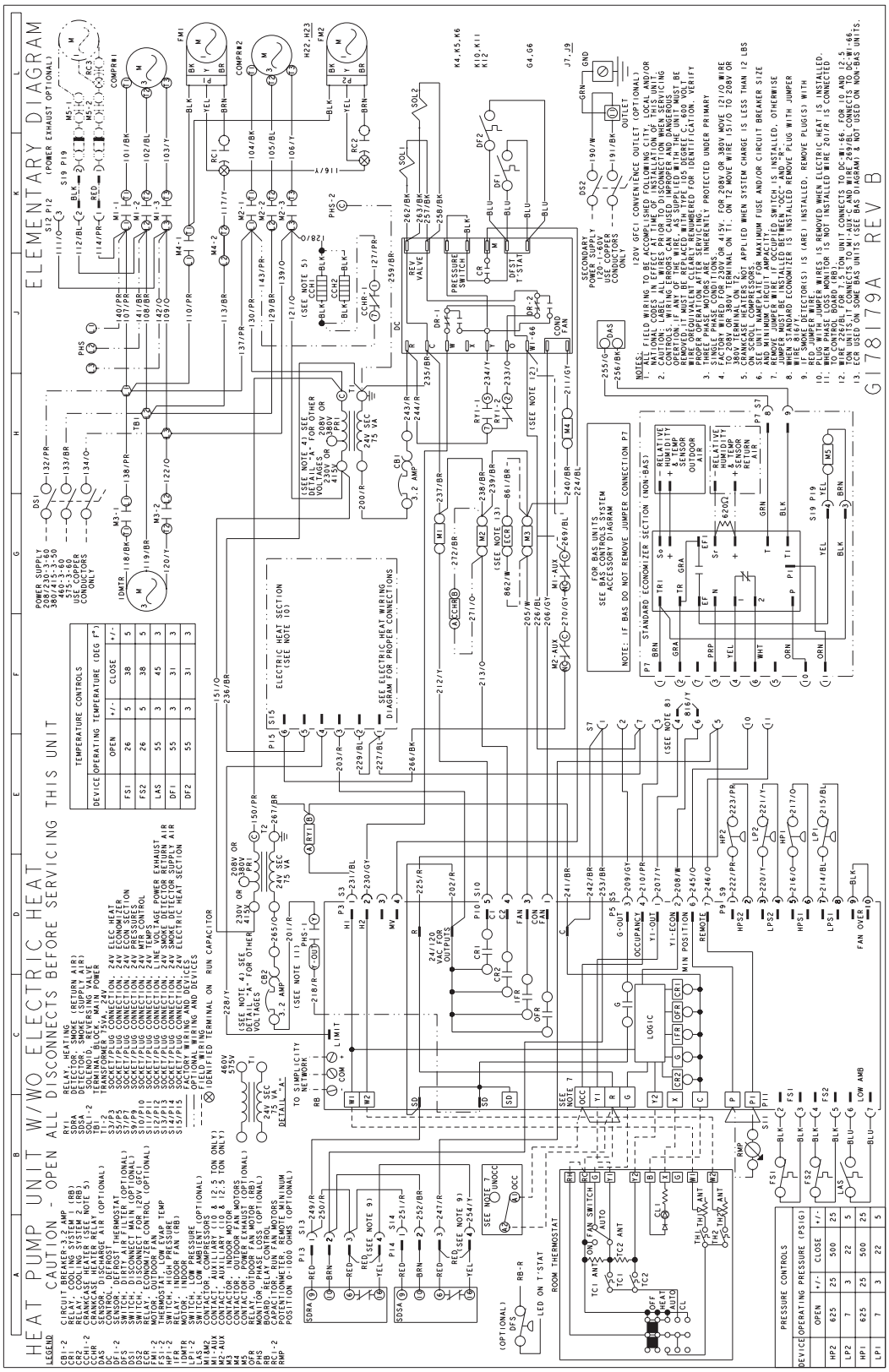


Typical ZR150 Reheat Wiring Diagram

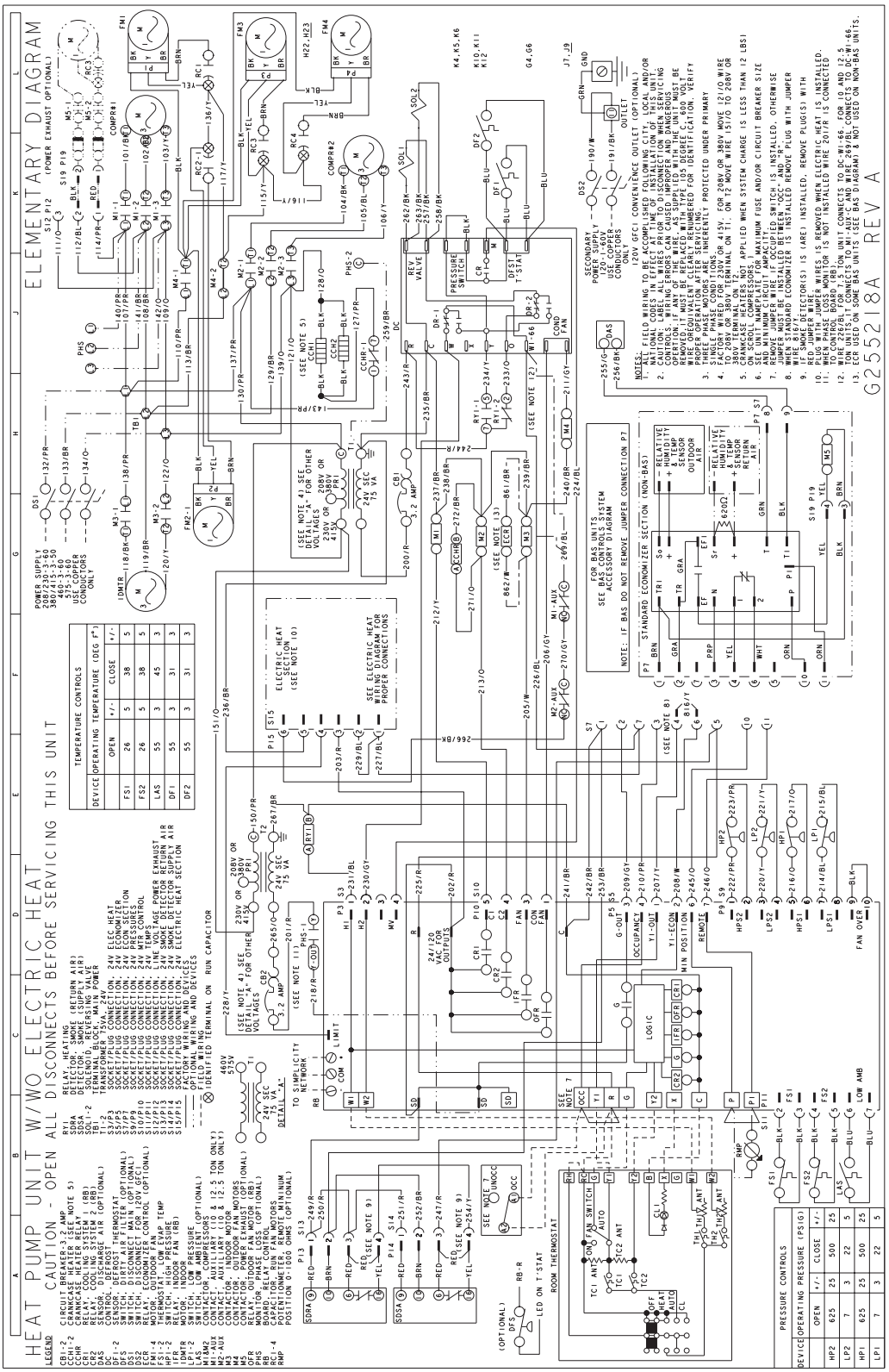


XP078-150 Typical Wiring Diagrams

Typical XP078-120 Heat Pump with/without Electric Heat Wiring Diagram


HEAT PUMP UNIT W/WO ELECTRIC HEAT
CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT
ELEMENTARY DIAGRAM
(POWER EXHAUST OPTIONAL)
G17817 9A REV B
LEGEND
TEMPERATURE CONTROLS
PRESSURE CONTROLS
NOTES:
1. ALL FIELD WIRING TO BE ACCOMPLISHED FOLLOWING CITY, LOCAL, AND/OR NATIONAL CODES. USE COPPER CONDUCTORS ONLY UNLESS OTHERWISE NOTED.
2. CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.
3. THREE PHASE MOTORS ARE INHERENTLY PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS.
4. FACTORY WIRED FOR 230V OR 415V. FOR 208V OR 380V MOVE 12I/O WIRE TO 208V OR 380V TERMINAL ON T1. ON T2 MOVE WIRE 151/O TO 208V OR 380V TERMINAL.
5. CRANKCASE HEATERS NOT APPLIED WHEN SYSTEM CHARGE IS LESS THAN 12 LBS ON SCROLL COMPRESSORS.
6. FOR MAXIMUM FUSE AND/OR CIRCUIT BREAKER SIZE AND MINIMUM CIRCUIT AMPACITY.
7. REMOVE JUMPER WIRE WHEN OPTIONAL DISCONNECT SWITCH IS INSTALLED. OTHERWISE JUMPER WIRE MUST BE INSTALLED.
8. WHEN STANDARD ECONOMIZER IS INSTALLED REMOVE PLUG WITH JUMPER WIRE.
9. IF SMOKE DETECTOR(S) IS (ARE) INSTALLED, REMOVE PLUG(S) WITH RED JUMPER WIRE.
10. WHEN JUMPER WIRES IS REMOVED WHEN ELECTRIC HEAT IS INSTALLED.
11. WHEN PHASE LOSS MONITOR IS NOT INSTALLED WIRE 201/R IS CONNECTED TO CONTROL BOARD TR1.
12. FOR 208/230V, 460V APPLICATION UNIT CONNECTS TO DC-W1-66. FOR 10 AND 12.5 TON UNITS, IT CONNECTS TO W1-AUX-C AND WIRE 269/BL CONNECTS TO DC-W1-66.
13. ECR USED ON SOME BAS UNITS (SEE BAS DIAGRAM) & NOT USED ON NON-BAS UNITS.

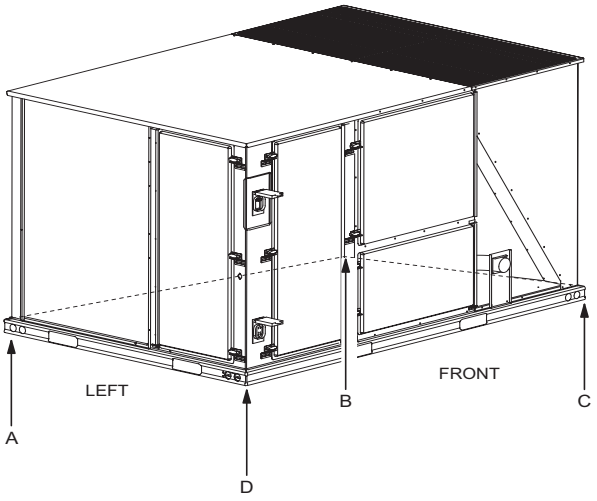
Typical XP150 Heat Pump with/without Electric Heat Wiring Diagram


ELEMENTARY DIAGRAM
HEAT PUMP UNIT W/WO ELECTRIC HEAT
CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT
G2552184 REV A

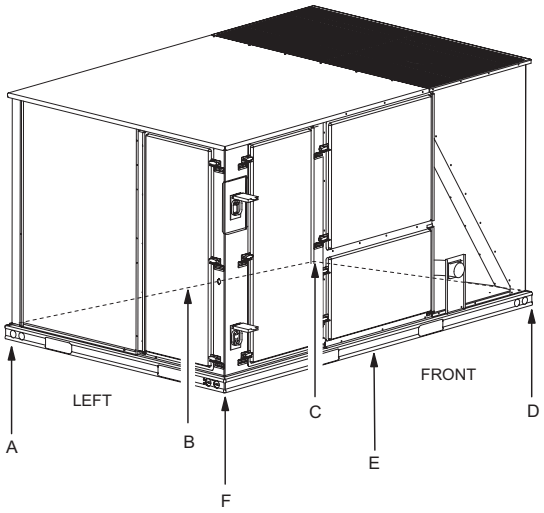
Weights and Dimensions

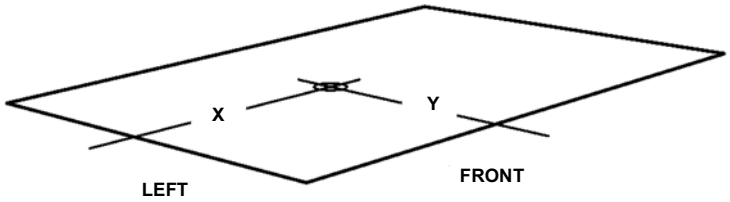
ZH/ZR/XP078-150 Unit Weights

Unit 4 Point Load Weight



Unit 6 Point Load Weight





Size (Tons)	Model	Weight (lbs.)		Center of Gravity		4 Point Load Location (lbs.)				6 Point Load Location (lbs.)					
		Shipping	Operating	X	Y	A	B	C	D	A	B	C	D	E	F
078 (6.5)	ZH	905	900	38	23	201	150	234	315	141	115	95	149	180	221
090 (7.5)	ZH	925	920	38	23	206	153	240	322	144	117	97	152	184	225
102 (8.5)	ZH	1140	1135	38	25.5	281	209	275	369	197	160	133	175	211	259
120 (10)	ZH	1140	1135	38	25.5	281	209	275	369	197	160	133	175	211	259
150 (12.5)	ZH	1405	1400	51	25.5	258	347	456	339	164	198	243	319	260	216
078 (6.5)	ZR	970	965	38	23	216	161	251	337	151	123	102	160	193	236
090 (7.5)	ZR	970	965	38	23	216	161	251	337	151	123	102	160	193	236
102 (8.5)	ZR	1205	1200	38	25.5	297	221	291	390	208	170	141	185	223	274
120 (10)	ZR	1205	1200	38	25.5	297	221	291	390	208	170	141	185	223	274
150 (12.5)	ZR	1470	1465	51	25.5	270	363	477	355	172	207	254	334	272	226
078 (6.5)	XP	925	920	38	23	206	153	240	322	144	117	97	152	184	225
090 (7.5)	XP	925	920	38	23	206	153	240	322	144	117	97	152	184	225
102 (8.5)	XP	1140	1135	38	25.5	281	209	275	369	197	160	133	175	211	259
120 (10)	XP	1140	1135	38	25.5	281	209	275	369	197	160	133	175	211	259
150 (12.5)	XP	1405	1400	51	25.5	258	347	456	339	164	198	243	319	260	216

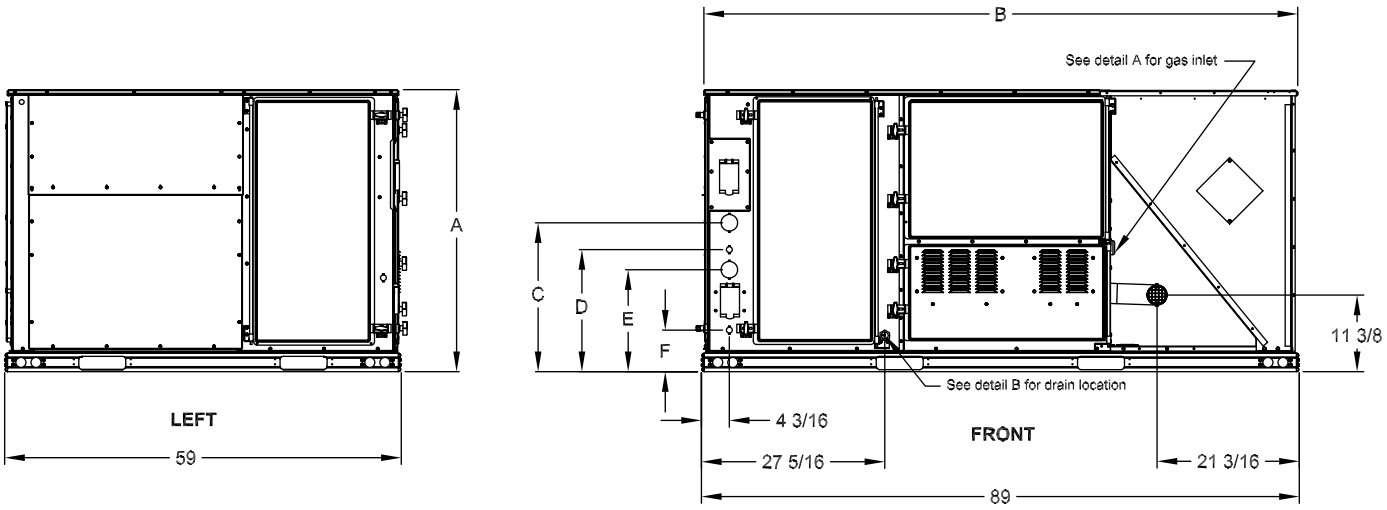
ZH/ZR/XP078-150 Unit Accessory Weights

Unit Accessory	Weight (lbs.)	
	Shipping	Operating
Economizer	90	85
Power Exhaust	155	150
Electric Heat[1]	80	80
Gas Heat[2]	110	110

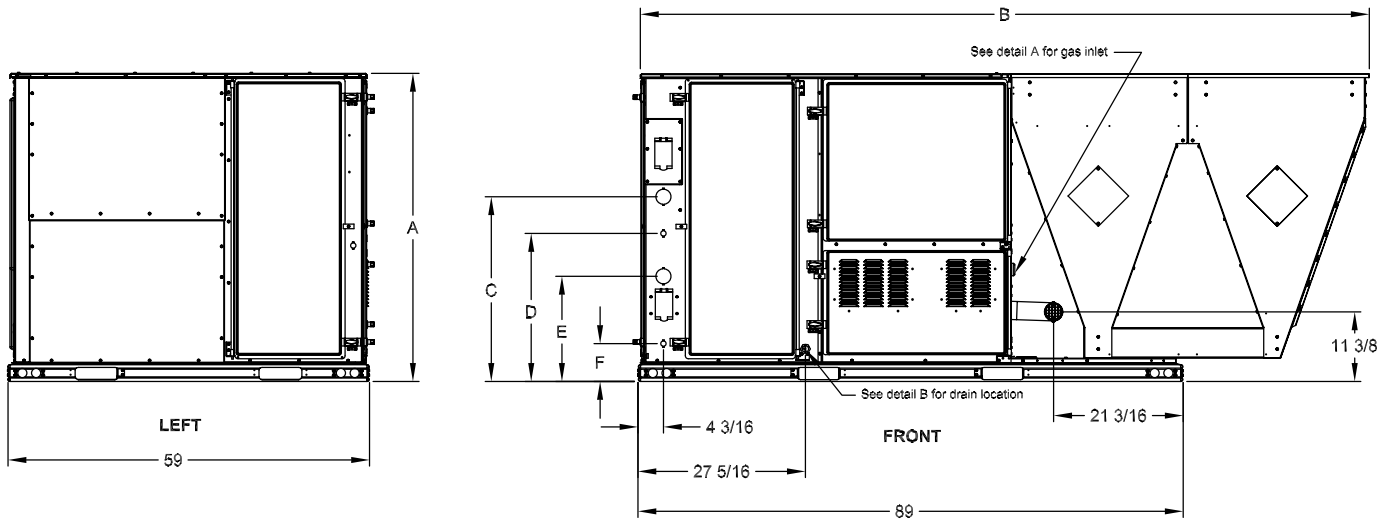
1. Weight given is for the maximum heater size available (54KW).
2. Weight given is for the maximum number of tube heat exchangers available (8 tube).

ZH/ZR/XP078-150 Unit Dimensions

ZH/ZR/XP078-120



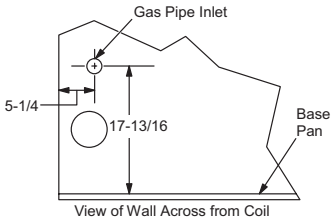
ZH/ZR/XP150



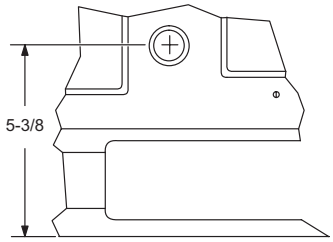
ZH/ZR/XP078-150 Unit Physical Dimensions

Unit Model Number	Dimension (in.)					
	A	B	C	D	E	F
078	42	89	22 1/8	18 3/16	15 3/16	6 3/16
090	42	89	22 1/8	18 3/16	15 3/16	6 3/16
102	50 3/4	89	30 3/16	24 3/16	17 3/16	6 3/16
120	50 3/4	89	30 3/16	24 3/16	17 3/16	6 3/16
150	50 3/4	119 1/2	30 3/16	24 3/16	17 3/16	6 3/16

Detail A



Detail B

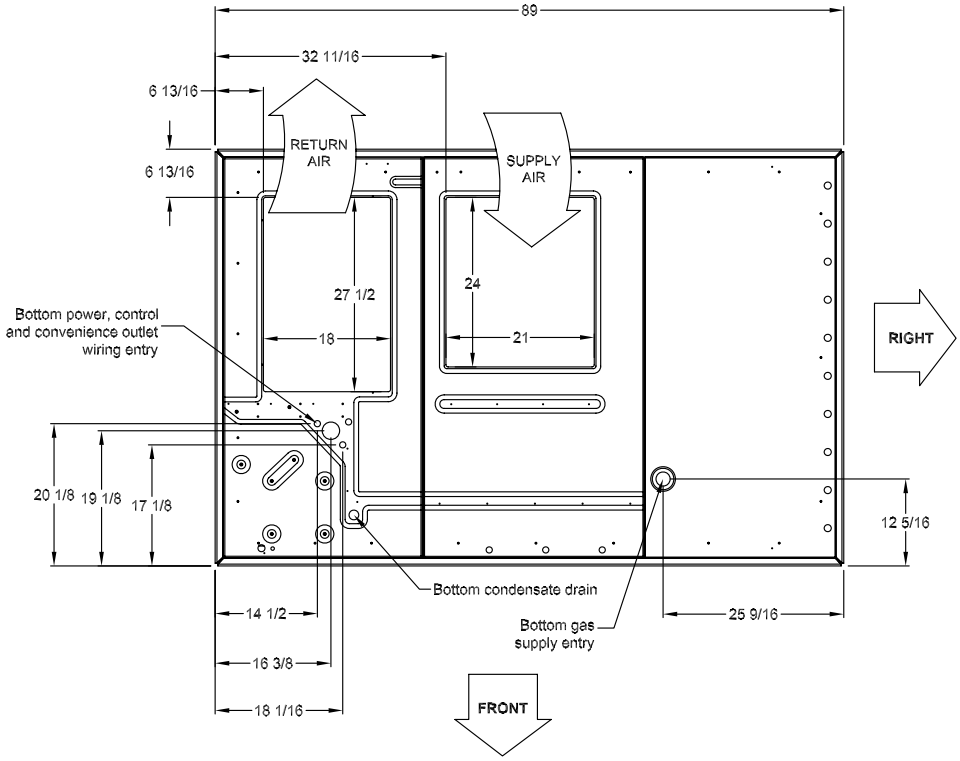


ZH/ZR/XP078-150 Unit Clearances

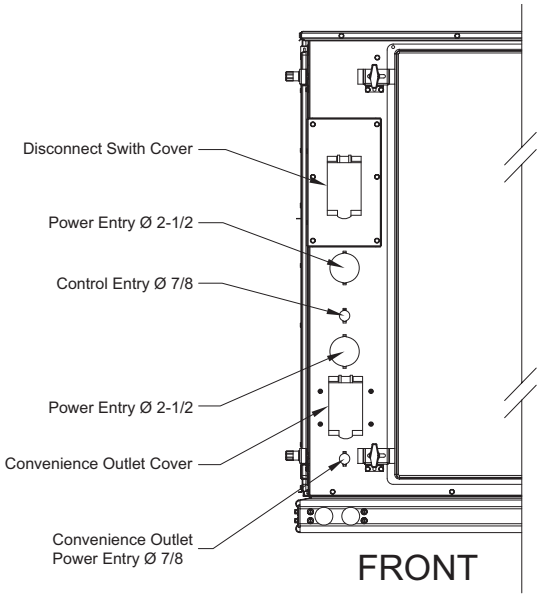
Direction	Distance (in.)	Direction	Distance (in.)
Top[1]	72	Right	12
Front	36	Left	36
Rear	36	Bottom[2]	0

1. Units must be installed outdoors. Over hanging structure or shrubs should not obscure condenser air discharge outlet.
2. Units may be installed on combustable floors made from wood or class A, B or C roof covering materials.

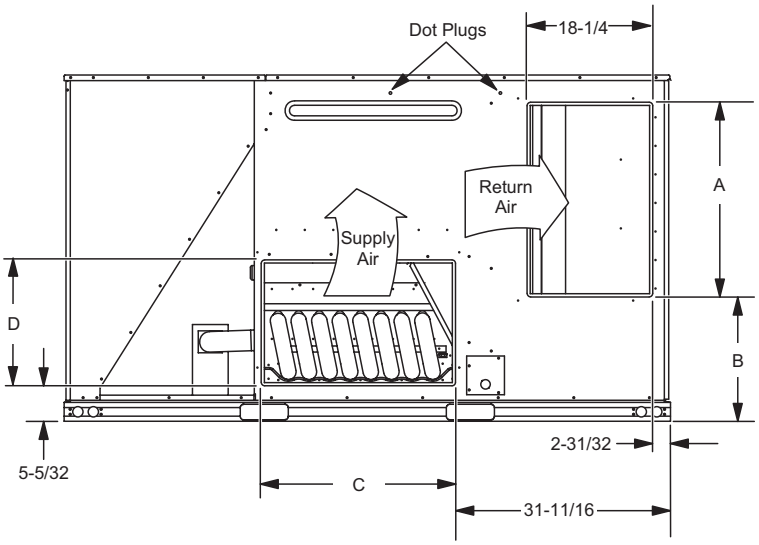
ZH/ZR/XP078-150 Unit Bottom Duct Openings



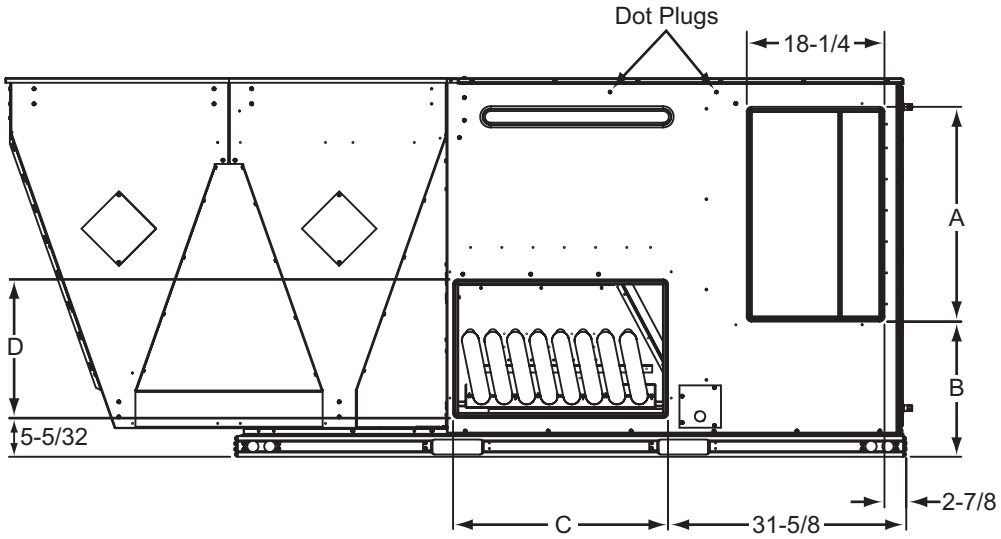
ZH/ZR/XP078-150 Unit Electrical Entry



ZH/ZR/XP078-120 Unit Side Duct Openings



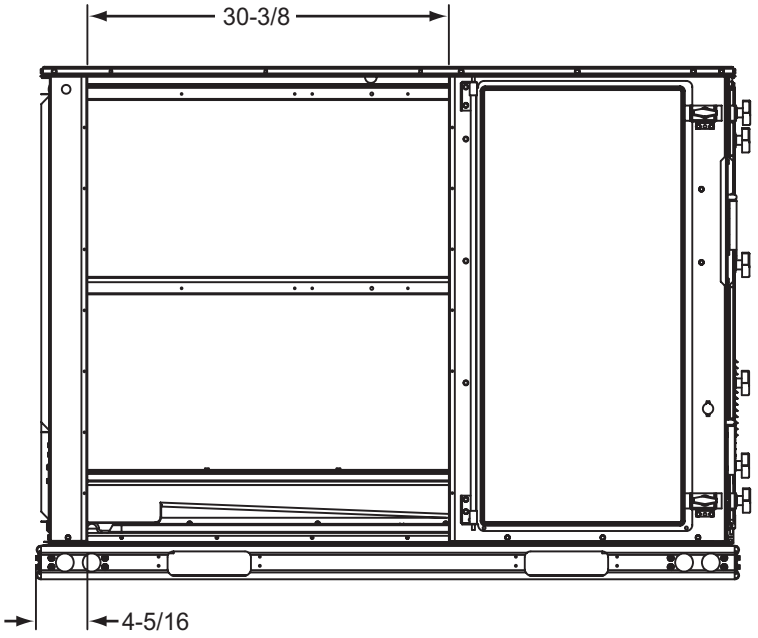
ZH/ZR/XP150 Unit Side Duct Openings



Side Duct Dimensions

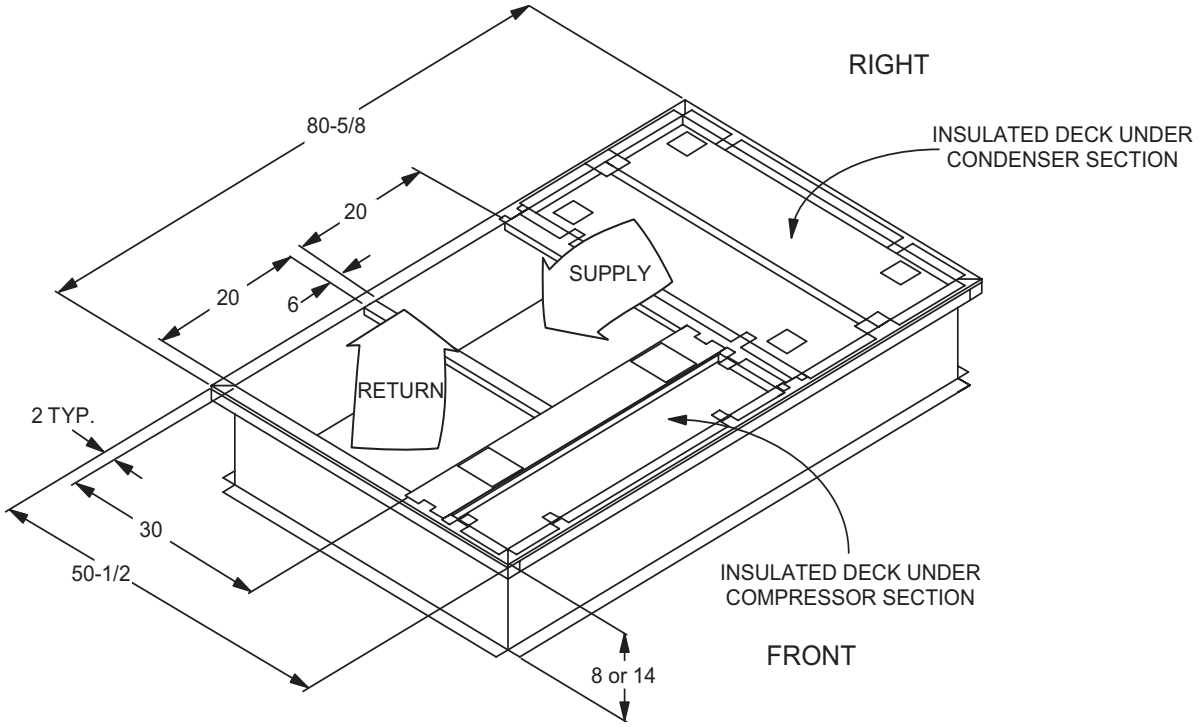
Unit Model Number	Dimension (in.)			
	A	B	C	D
078	27 3/4	12 1/16	27 1/2	16
090	27 3/4	12 1/16	27 1/2	16
102	28 1/4	18 1/16	28 1/4	18 1/4
120	28 1/4	18 1/16	28 1/4	18 1/4
150	28 1/4	18 1/16	28 1/4	18 1/4

ZH/ZR/XP078-150 Unit Left Duct Opening

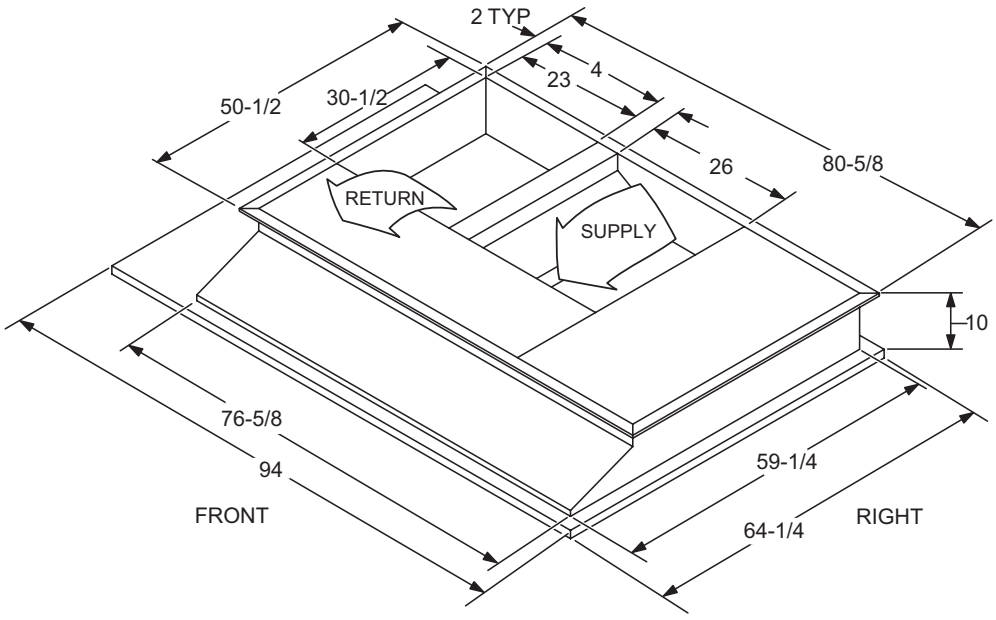


ZH/ZR/XP078-150 Unit Accessory Dimensions

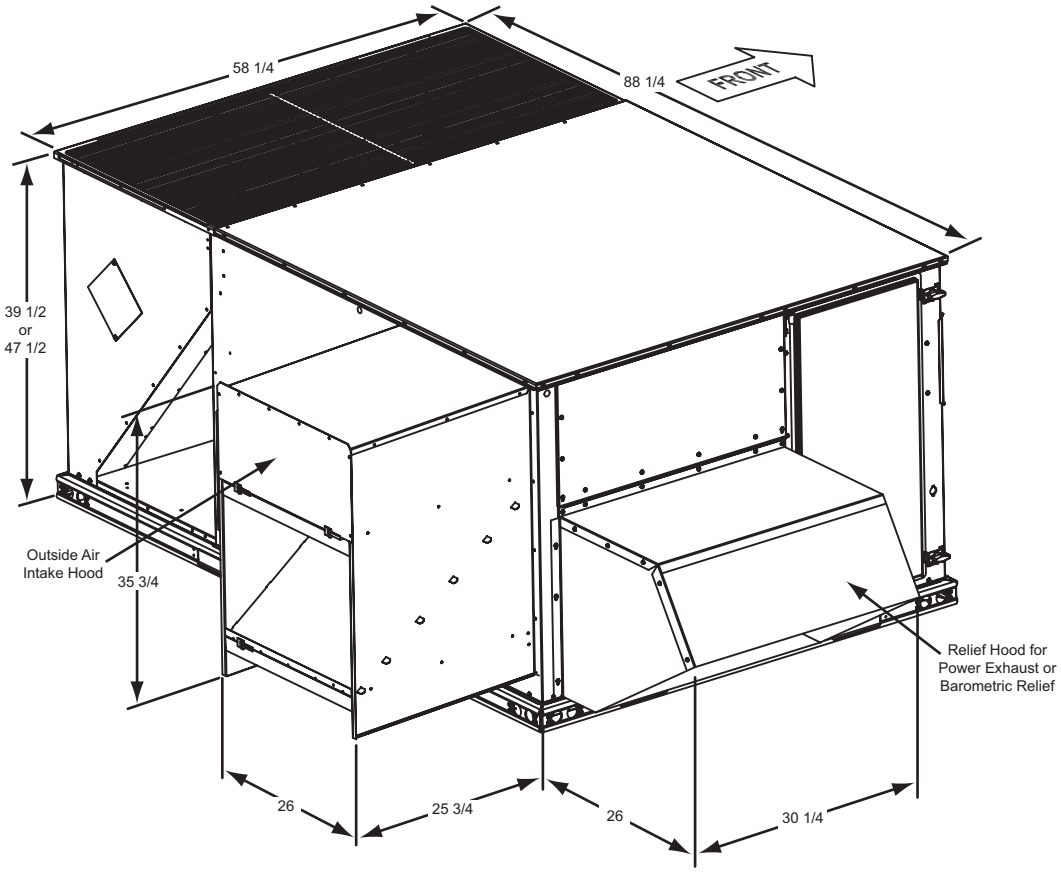
ZH/ZR/XP078-150 Roof Curb



ZH/ZR/XP078-150 Transition Roof Curb



ZH/ZR/XP078-150 Economizer Assembly



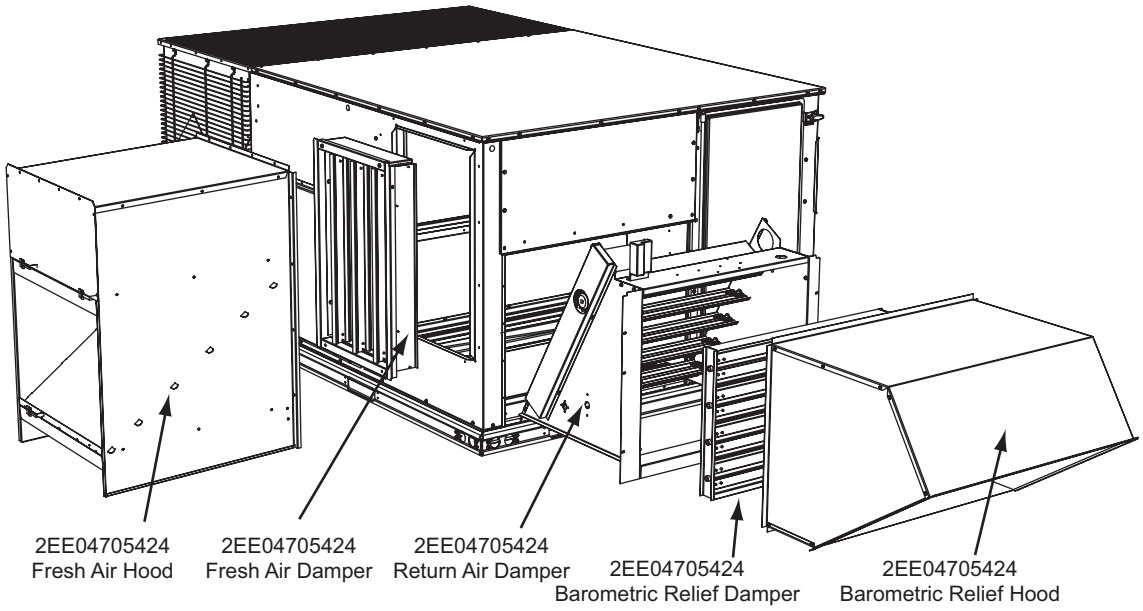
Economizer Options

Economizer Usage

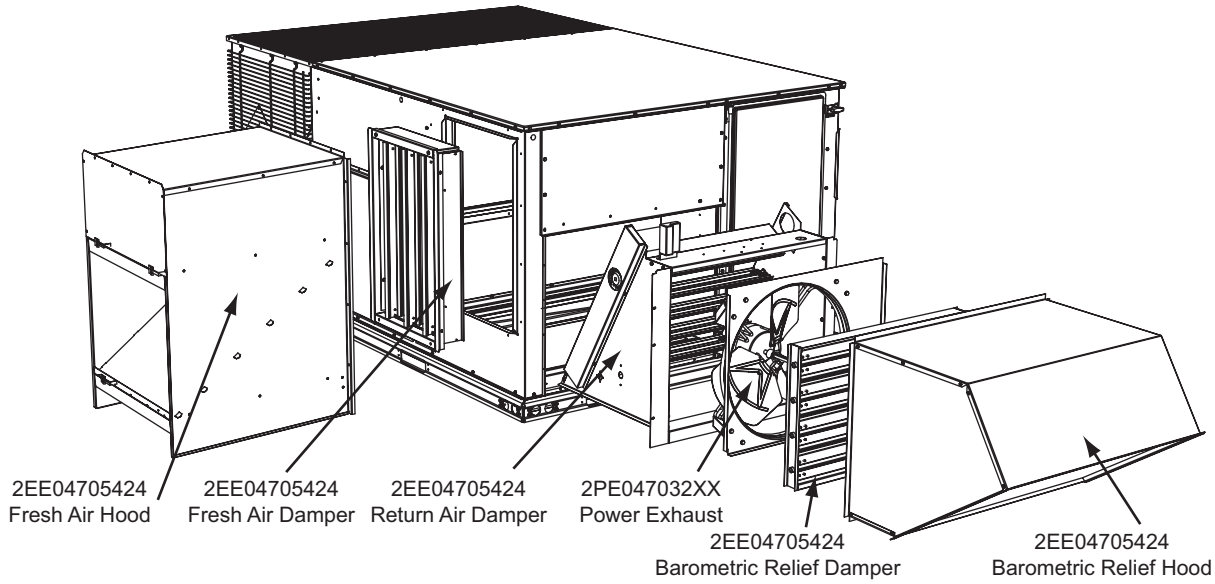
Application	Cabinet Height	Description	Model
Bottom Return	All	Downflow economizer with barometric relief	2EE04705424
Side Return	All	Horizontal economizer without barometric relief	2EE04705524[1]
ERV or End Return	42"	Slab Economizer, 42” tall cabinet	2EE04705624[2]
	50"	Slab Economizer, 50” tall cabinet	2EE04705224[2]

1. Barometric relief must be ordered seperately and installed in duct work.
2. Barometric relief or fresh air hood not included. Must be ordered seperately.

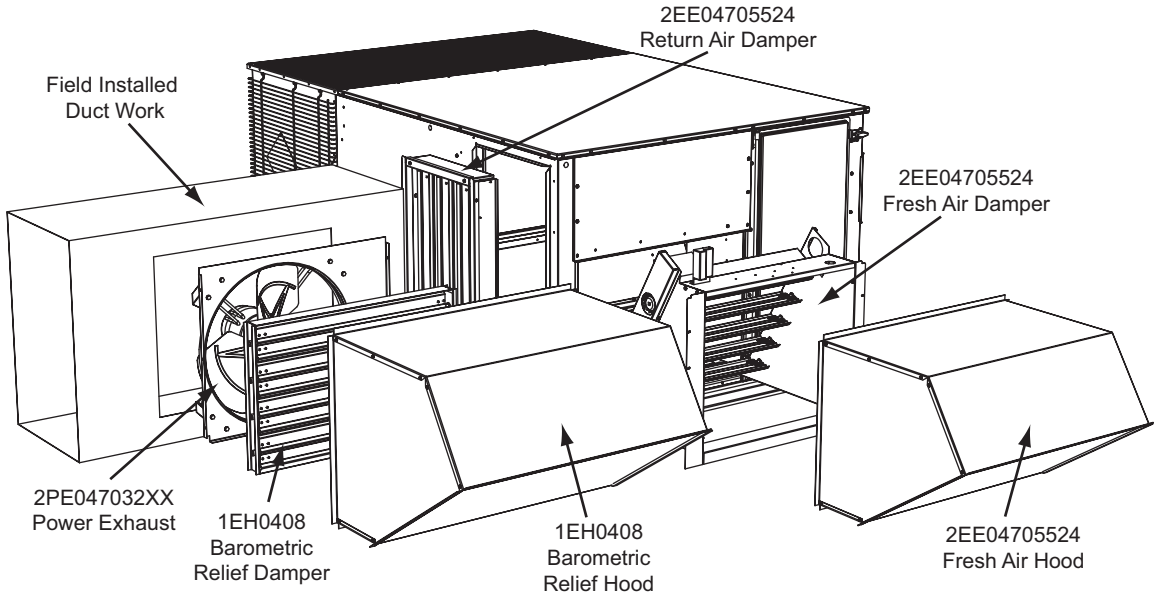
Factory Installed Downflow Economizer



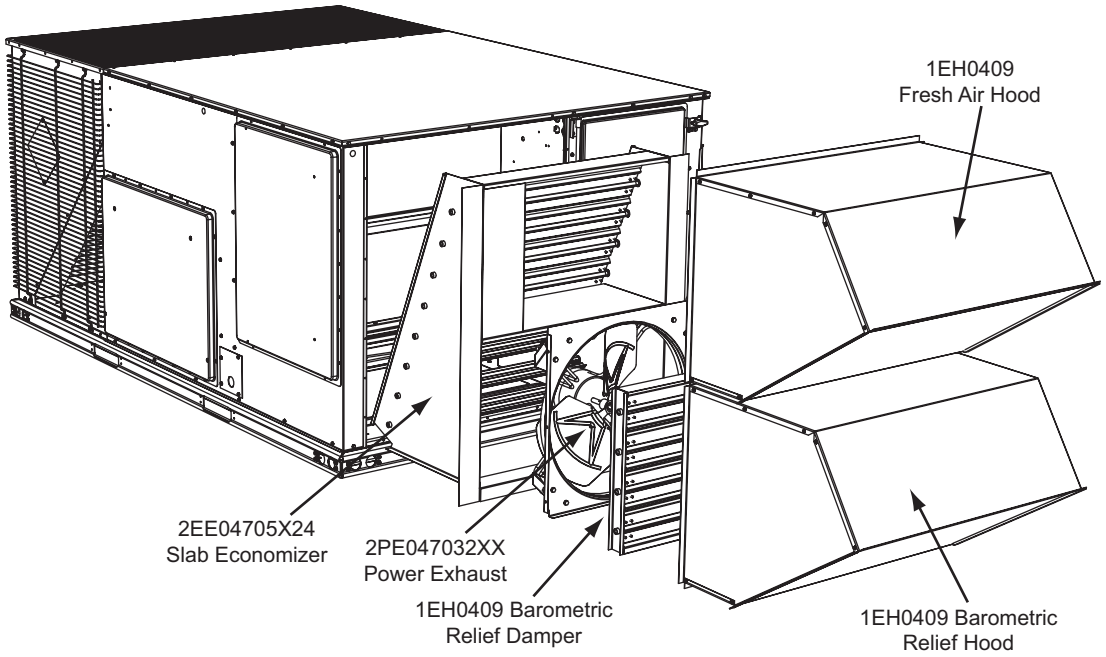
Field Installed Downflow Economizer W/Power Exhaust



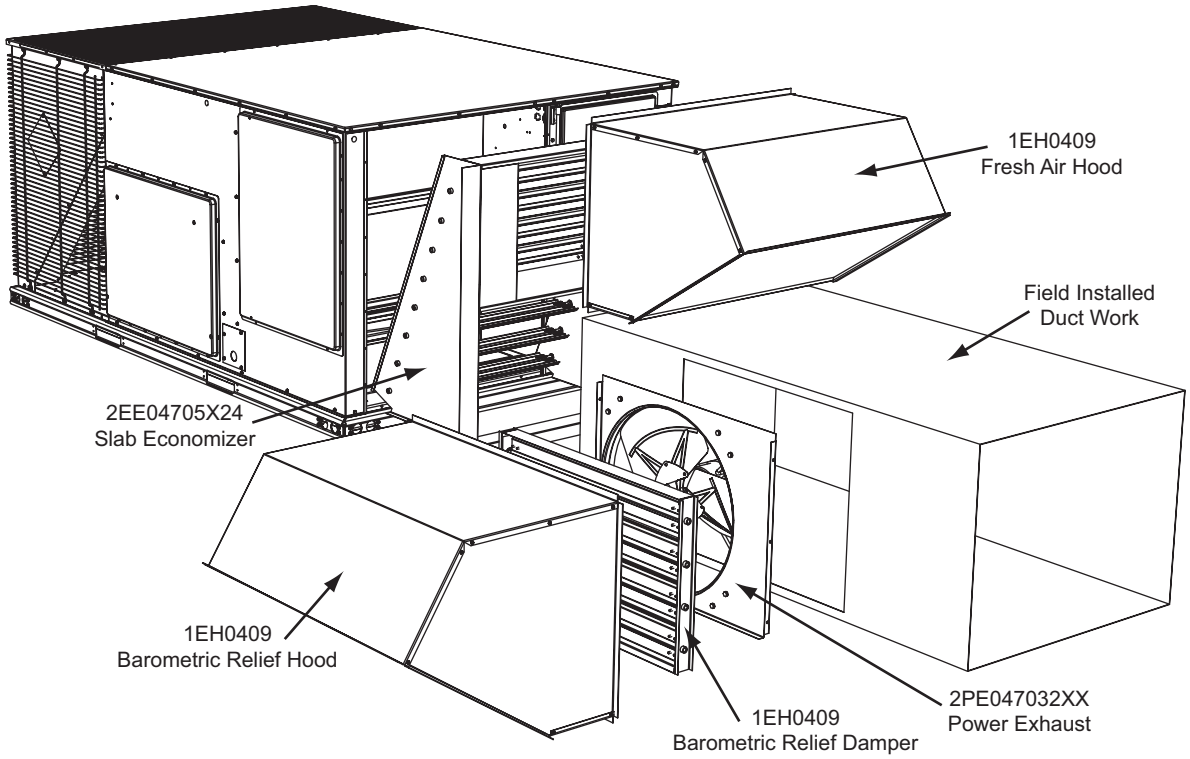
Field Installed Horizontal Economizer W/Power Exhaust



Slab Economizer Downflow W/Power Exhaust



Slab Economizer End Return W/Power Exhaust



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